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ABSTRACT

This syllabus was designed to serve as the instructor's manual for courses in the teaching of German offered to elementary and secondary teachers in Texas. The material presented is divided into the following parts: (1) introduction to linguistics and phonetics and phonemics, (2) teaching pronunciation and pronunciation drills, and (3) grammar and syntax. Suggestions for supplementary reading and assignments are given in each part of the syllabus, and the texts of the pronunciation drill tapes used in the course are also included. (PMP)

ED 100185

A SYLLABUS FOR AN INSERVICE COURSE IN THE TEACHING OF GERMAN

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EDUCATION & WELFARE
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PREFACE

During the past decade foreign language instruction has seen a shift of emphasis from a reading-literature approach to that of development of proficiency in the four language skills: listening, speaking, reading and writing.

Although there are teachers who have studied linguistics, either in summer institutes or in regular college courses, there are still many who feel the need of a practical course in applied linguistics. It is for these teachers that the Foreign Language Section of the Texas Education Agency has contracted the services of outstanding linguists in French, German, Latin and Spanish to develop the syllabi in each of the languages. This syllabus will serve as the instructor's manual for each of the courses to be offered to elementary and secondary teachers throughout the State.

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SESSION I

TOPIC	TIME	MATERIALS	PAGE
I. An introduction to linguistics	45 min.		4
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II. Aspects of language of interest to linguists and language teachers	50 min.		8
A. External form of spoken language -- phonology			
B. Patterning sound into meaningful units -- morphology			
C. Combining meaningful units into utterances -- syntax			
D. Meanings as such - vocabulary and lexicon			
BREAK	20 min.		
III. The study of sounds	60 min.		16
A. Phonetics 1. Auditory 2. Acoustic 3. Articulatory 4. Vocal mechanism			

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TOPIC	TIME	MATERIALS	PAGE
B. Phonemics 1. Consonants and vowels 2. Phonemes 3. Allophones			
IV. English and German sounds	60 min.	Chart of English Sounds Chart of German Sounds	26
A. Consonants B. Vowels			
Assignment sheet			
Evaluation			

Notes to Instructor:

- Participants should read and familiarize themselves with the introductory unit and preface of Moulton: The Sounds of English and German, and take notes on the material presented here.
- The practical, pedagogical value of Moulton should be emphasized for the classroom teacher of German.
- Stress importance of contrastive analysis as a tool for teacher but not for student.

I. An Introduction to Linguistics

Linguistics is the scientific study of language. The term 'scientific' in this definition indicates that such study is controlled and that results can be verified empirically. The methods of linguistics are many and varied, as are the aspects of language which might be studied and the relationships of language to the many other facets of human activity. The science of linguistics, in all its forms, has provided much which is of value to the field of language teaching. A general overview of the field of linguistics, at least of some of the major areas of linguistic research, might provide some insights into ideas and concepts to be presented and discussed later, while at the same time providing a framework within which to interpret individual bits of information which come to us from one or another area of linguistic study.

Linguistics divides language in many different ways, one of the more obvious being: a) language as it exists and is being spoken and written now, as opposed to: b) the historical development of language. A contemporary language, German, for example, or English, can be considered as a currently-existing phenomenon, as it occurs every day in the minds, mouths and ears of millions of speakers of the language, as well as in countless books, magazines, letters, documents, etc. A study of language based on this kind of raw material is termed a synchronic study. On the other hand, a study which treats of the developments which a language has undergone over a period of time, a study of the historic development of a language, is called a diachronic language study.

A diachronic linguistic study can focus on different aspects of language. For example, an individual language can be traced through a given period of time; related languages can be compared at different periods of time; changes in sound, changes in the forms of words and endings, changes in the meanings of individual words can be observed and studied; and so on. Quite often, the historical development of language gives the only clue to the answer to the frequent question of 'why?'; further examples: 'weg' [vek] vs. 'der Weg' [veːk]; 'auf Erden' vs. 'auf der Erde'.

Students in beginning language courses often want to know why certain things happen. For example, a student might ask why the plural of 'Vater' is 'Väter'. Many kinds of answers can be given to such a question. Let us consider a few possibilities. An answer such as "Simply because that's the way German makes the plural of 'Vater'" though accurate in the synchronic sense, is quite often not satisfying to a student. On the other hand, a detailed historical explanation of the process of umlaut generally serves only to confuse the student or to convince the student of the depth of the teacher's knowledge, and neither of these results contributes much to language learning. A further possibility, which compares similar processes in English, and which can be kept very brief, usually satisfies the student's curiosity, at the same time perhaps giving a brief insight into the structure of language as well as a minute awareness of the fact that German and English are really closely related languages: "German, and related languages, sometimes form the plurals of nouns by changing the main vowel of the noun. English, for example, still has a few examples of this type, which are in a sense relics of an earlier stage of the development of the language, e.g., foot:feet, goose:geese, man:men. Whereas English has regularized the process of forming noun plurals, so that now most plurals are formed by adding '-s', German still has several ways of forming plurals, of which 'Vater:Väter' is just one example." Such an explanation can be given in about twenty seconds, and while some might argue that this is too great an expenditure of time, it can also be argued that the teaching and learning of a foreign language has goals beyond the simple mastery of another tongue. If judiciously used, explanations of this type can maintain student interest and can add a bit of life when attention begins to wander. Students can thereby be made aware, gradually, that much that happens in language can only be explained in historical terms, and even then not entirely satisfactorily.

Questions beginning with 'What' are generally easier to answer briefly and accurately. Synchronic linguistic studies deal with the 'what' of languages. Any language can conveniently be divided into the following aspects for study: the sounds of the language; the ways the sounds are combined into meaningful units; the ways in which these meaningful units are arranged in utterances; and the meanings of the units. While this is by no means an exhaustive list of the facets of language which can be studied, it provides a framework within which some of the more easily observed features of language can be dealt with.

The study of language sounds as sounds, that is, without regard to function within the system of the language, is termed phonetics.

In phonetic studies the concern is for sounds as they occur, and while the subject of phonetics is of course natural languages, and sounds are studied as they occur in languages, the focus is on the sounds--their production or their acoustic features--but not on the ways they pattern in a given language or are used to convey meaning.

Other branches of linguistics focus on different aspects of language. Sociolinguistics, for example, is concerned mainly with the role language plays in society, for instance social stratification (e.g., teen-age jargon). The study of regional variation in a language is called dialectology. Anthropological linguistics deals with the interaction of language and culture. The field of psycholinguistics deals with such things as language acquisition, the psychological processes involved in speaking, hearing and understanding, with meaning, and the like.

The results and findings of linguistic studies can be of great benefit to the language teacher. Phoneticians, for example, have described the sounds of many languages in terms of their production and acoustic features. A familiarity with phonetics enables the language teacher to help students by analyzing their pronunciation and suggesting improvements. And while a thorough knowledge of the mechanisms, organs and musculature utilized in speech production might not be necessary for the language teacher, a familiarity with the ways in which speech sounds are produced can be a very useful tool. Further, a realization of the ways sounds are organized in native and target languages can help in identifying and coping with learning difficulties. The results of psycholinguistic studies often add insights into language acquisition, the effectiveness of various teaching approaches, memory span, child language learning, and so on. The language teacher would do well to keep abreast of current research and findings of linguistic science.

II. Aspects of Language of Interest to Linguists and Language Teachers

In the wake of the abrupt trend away from the traditional grammar-translation method of language teaching to heavy emphasis on oral/aural skills and facility, the current language teaching scene retains a great deal of the stress on speaking and aural comprehension ability. But cognizance is again being taken of the fact that there is a need to be able to read in the foreign language, to be able to take in hand a work written in a foreign language and to understand and appreciate it first-hand, without the work having been pre-digested by a translator. For any translation must necessarily show some personal interpretation by the translator, to a greater or lesser degree.

To the ears of a modern high school student, a foreign language such as German may sound a bit strange and exotic, but probably not as strange and exotic as might be expected. The Texas high school student has undoubtedly heard languages other than English, spoken on the street, in parks and playgrounds, in the stores, on the radio and television, even in the movies. The "cultural shock" of actually realizing and appreciating that people carry on their normal day-to-day activities without using English at all has been softened for today's youth. The isolationism of former decades has been tempered to a great extent by cross-cultural contacts that were relatively infrequent in the recent past.

Spoken German resembles spoken English in some of its broader features. A person overhearing a German conversation is not struck by any great variance in intonation patterns (the external form of utterances in terms of pitch and stress sequences and patterns), as he might be if the overheard conversation were Norwegian, for instance, or Chinese. Nor are the segmental phonological features at great variance with English. The major features striking the ear as different are the peculiarly German sequence patterns of sounds.

This is not to imply that German and English are similar in the finer features of pronunciation. An in-depth analysis of the sound systems of German on the one hand and English on the other is presented by Moulton in The Sounds of English and German. A brief introduction to phonetics, the study of human speech as sounds (chapters 1, 2 & 6), lays foundations for a contrastive study of English and German phonology.

Just what is a "contrastive study of phonology"? By analyzing rather thoroughly the sound of the native language and the sound system of the language to be taught (target language), in terms of sound types (phonemes) and the various realizations of these sound types (allophones), and by comparing the analyses of the two languages, it becomes apparent in which features the languages resemble one another and in which features they differ. The results of such analyses are usually stated in terms of three kinds of situations: 1. areas in which the two languages are similar (both German and English have a sound-type /m/, the various kinds of which behave much the same in each language.); 2. areas in which the two languages differ radically (German has front rounded vowels, /ü/ and /ö/, and English has no comparable sound-types. English has interdental fricatives, the /θ/ of 'throw' and the /ð/ of 'then', but German has no comparable sounds); and 3. areas in which the two languages have similar sound-types but different realizations or different distributions for the sub-classes (both German and English have a /t/ sound-type, but German lacks the voiced inter-vocalic variety which occurs in English 'water', 'butter', etc.; both languages have a sound /ŋ/, but in English this phoneme can occur either intervocalic as in 'singer' or in the sequence /ŋg/ as in 'finger', whereas in German the /ŋg/ sequence does not occur; cf. German 'Finger' and 'singen.' Other examples may be needed for individuals who say 'finger' and 'singer' the same in English.) Earlier contrastive analyses spoke of only two situations, same and different, with the implication that "same" was the easier to teach, and "different" was the more difficult. In-depth analyses, however, probe into the sub-phonemic structures, and find it necessary to differentiate between "similar" and "similar but with different allophones or distributions," so as to be able to separate situations as in the examples above. Obvious differences, such as sounds in the target language which do not occur in the native language, are far easier to teach (and also to learn) than similar sounds which are distributed differently.

Similarities in the phonological systems of the native language and the target language are often regarded as the easiest to teach and learn but care should be exercised in this regard. A careful analysis of the respective sound systems shows that there are often many incidental differences between similar phonemes and their allophones. Indeed, very few of the German sound types are really close to English sound types in all their aspects. Cf. haben [habm̩], and cabin [k^hæbən], not [k^hæbm̩].

Moulton's chapters dealing with phonemic analysis of vowels and consonants of the two languages (chapters 3, 4, 7, & 8) treat of the major sound types of the two languages, dealing with each sound type as a class of sounds composed of members which either vary freely or are in complimentary (mutually exclusive) distribution. This means, for instance, that the German sound-type labeled /t/ represents the various forms which the voiceless apico-dental stop can assume, depending on the context or environment in which it occurs. If German /t/ occurs in initial pre-vocalic position, for instance, it is realized as a strongly aspirated stop: [t^h]. * If German /t/ occurs between two vowels, the first of which is more strongly stressed than the second, it is realized as a very weakly aspirated stop: [t']. If German /t/ occurs before another consonant, it is realized as an unaspirated stop: [$t^=$] or [t]. If German /t/ occurs in final position, it is realized as either an unaspirated stop: [$t^=$], or much less frequently an unreleased stop: [t¬]. It may be noticed from this presentation that all of the potential

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*A symbol appearing within virgules, / /, represents a sound-type (phoneme) of a specific language. A symbol appearing within brackets, [ ], represents a sound without reference to its function in any specific language, a speech sound as it would be heard by a Martian visitor; in other words, a sound regarded simply as a physical phenomenon.

realizations of a phoneme, German /t/ in this case, can conveniently be represented in a phonemic transcription by a single symbol, since distributional statements regarding allophones are an integral part of a phonemic analysis, and there is no place in the German language where any two of the allophones contrast (i.e., there is no pair of words which signify different meanings because one has [tʰ] where the other has [t] or [t˺]).

What is true in terms of contrast and distribution of the sound class /t/ and the members of the class, [tʰ], [t], etc., is true of all the phonemes of German and of English, indeed of any language.

What are the implications of this type of analysis (phonemic analysis of the native language and of the target language and subsequent comparison of the two) in terms of classroom teaching? Should one try to teach students about phonemes, sound types, contrastive analyses and the like? Unless the students are very sophisticated linguistically, they do not need to know much about the technical aspects of phonological analysis.

What they need instead is an ability to produce orally the sounds and sound patterns of the foreign language, and the ability to recognize these sounds and sound patterns when spoken. But some insights into the sound patterns of the foreign language can aid the teacher in the presentation of phonological material. Awareness of potential trouble spots, based on a contrastive analysis, should make the teacher attentive to student production involving these potential points of conflict.

For example, the German /l/ usually presents problems for American students. All major varieties of Americal English have at least two kinds of l-sounds, usually described as light-l and dark-l (more accurately described as non-velarized-l and velarized-l). The distribution of the two varies from geographical area to geographical area, but a safe generalization for American English is that initial /l/ is light (non-velarized) for most Americans, and final /l/ following non-front vowels (e.g. /a/, /u/) is dark (velarized). German, on the other hand, has no velarized variety of /l/. Thus the teacher should be attentive to American student production of items such as 'voll', 'fall', 'fallen', 'sollte', etc., where the student's native-language habits will cause him to tend to substitute dark-l for the German light-l. In some varities of American English the dark-l may even occur following front vowels, causing potential pronunciation problems in items such as German 'fiel', 'will', 'Seele', 'gelb', etc.

These potential trouble areas, which are presented in some detail in Moulton, should be considered by the teacher as exactly that: potential trouble areas. There is a higher degree of probability of pronunciation error by American students for some German sounds than for others. Despite this fact, the teacher should avoid drawing too much attention to these points, lest he predispose the students to making mistakes which they might otherwise avoid through simply imitating an accurate model correctly. In the day-to-day oral work in class, however, the teacher should have his ear tuned for these areas and be ready to offer immediate correction as soon as pronunciation errors are made; and pronunciation errors can be spotted much more easily in the flow of speech if one knows where errors are more likely to occur.

The area in which probably the most pronunciation errors occur is the area of the suprasegmentals. This term includes the intonational features of language: stress (that is, relative loudness of individual syllables), pitch (that is, the relative musical pitch of individual syllables), and juncture (that is, the way individual sounds are strung together in sequence). Other suprasegmental considerations include length (the relative lengths of individual sounds) and timing (the overall rhythm of the language). As with most aspects of pronunciation, the suprasegmental features of a language are usually best learned by imitating a competent model, but the teacher can be more effective if he has a knowledge of the peculiarities of the native and the target languages.

Sounds by themselves can be a very interesting topic of investigation, but are only one facet of language. The ways in which sounds are put together into meaningful units, the 'acoustic shape' of these units, as well as the combinatory patterns of the units, make up what is called the morphology of a language. Just as the minimal sound type is called a phoneme, a minimal meaningful unit is called a morpheme. How many units of meaning are contained in the word 'Frauen'? The first part of the word which has a meaning is 'Frau' (it has a meaning in itself.) The remainder of the word, '-en', has a kind of meaning also, in that '-en' signifies 'plural'. Consider then 'Gesetze'. It is also made up of two parts, 'Gesetz' and '-e'. The '-e' signifies plurality in the same way that '-en' signifies plurality in 'Frauen'. It would seem reasonable then to say that 'Frau' is a morpheme, 'Gesetz' is a morpheme, and that '-en' and '-e' are different forms of a morpheme whose meaning is 'plural' or 'more than one'. The study of the meaningful units of language is called morphology or morphemics.

Proceeding to the next stage, we can consider the ways in which these meaningful units are combined into meaningful utterances — sentences, questions, exclamations, commands, etc. This facet of language is known as syntax. The word order of various kinds of utterances, for example, is a function of the syntax of a language. Syntax also refers to the function of items within a sentence and the relationships of the items to each other and to the sentence as a whole. Here again a contrastive study of native and target languages can provide an indication of potential trouble spots. German declarative sentences, as an example, have a fixed verb position in terms of syntactic units, that is, the verb is restricted to second position in such sentences. English, on the other hand, shows a different kind of verb positioning, in that it is less rigidly fixed. Compare the two utterances.

> "Leider ist er nicht hier."
> "Unfortunately he is not here."

German word order, if used in the English, would produce an utterance which is not grammatical in English: *Unfortunately is he not here. Similarly English word order applied to German words would produce a non-grammatical utterance: *Leider er ist nicht hier. (A star or an asterisk placed immediately before a word or a phrase indicates that what follows is non-grammatical, that it may be made up of items which are part of some language, perhaps the language in question, but that the parts are put together in a way that is not grammatical for the language in question. A further example would be *Fraus; 'Frau' is grammatical in German, and '-s' is a plural marker for certain nouns, such as 'Auto' or 'Park', but '-s' does not occur attached to 'Frau', either as a plural marker or as a genitive marker, therefore the form *Fraus is non-grammatical as far as standard German grammar is concerned).

The meanings of individual words and expressions is the subject matter of the field of semantics. Of particular interest to the language teacher are such considerations as meanings, frequency of occurence of words, the ways in which morphemes can be combined to form more complex lexical items, and the numbers and kinds of lexical items which should be included in any particular language course. The results of semantic and lexical investigations can provide answers to some of the questions in this area, and can shed light on solutions to some of the problems.

III. The Study of Sounds

Phonetics. Phonetics is the study of human speech sounds. One of the most obvious and readily apparent characteristics of human beings is speech. Speech is so naturally a part of human beings that a person who does not or cannot speak is considered exceptional. For the purposes of the present discussion, speech will be considered to be "meaningful (at least potentially meaningful) vocal communication between human beings." We will disregard for the time being snoring, whistling, and other vocal symbols which do not fit into the linguistic system of a given language.

The sounds of language can be considered from several different aspects: production, reception, the transitional state between production and reception. Sounds are considered from the point of view of production by the branch of phonetics called articulatory phonetics. Auditory phonetics concerns itself with the reception of speech sounds. The study of speech sounds between the time they leave the mouth of the producer and the time they strike the ear of the hearer is called acoustic phonetics.

Auditory phonetics has traditionally been centered in the science of audiology, in consideration of the effect speech sounds have on the ear of the listener, on the listener's ability to differentiate between different sounds and to interpret them. Teachers of foreign languages need concern themselves only marginally with such considerations, since a person's ability to hear and differentiate sounds is tied up to a great extent with his ability to produce such sounds.

Acoustic phonetics is a science which involves the use of rather sophisticated and expensive equipment. In acoustic phonetics the subject of investigation is the effect produced by speech acts, by the movements and forces of speech organs, on the transmitting medium (air in nearly all cases). The composition of speech sounds is studied, for example the component frequencies, relative forces, perceived frequencies, duration in real time, the specific effects of one speech sound on surrounding sounds, and the like.

Insofar as the language teacher is concerned, the results of acoustic and auditory phonetic studies are useful mainly as verifications of ideas that have long been hypothesized but have not been provable until recently, as the result of the development of the various recording devices and such instruments as the sound spectrograph. Consider for example the initial sound of the English 'cow' or the German 'Kuh'. If a speaker places his vocal organs in position to produce either of these initial sounds, but does not allow himself to produce the following sound, it becomes apparent that either of these k-sounds is really not a sound at all, but rather a period of silence. (Instructor: Have participants articulate a k-sound and hold it for a 5-6 second period; ask what they hear. If not convinced, suggest that each person articulate either a k-sound or a t-sound, then place the hand in front of the face and turn to the person next to him for identification; of course, until a voiceless stop is released, it cannot be identified unless the position of the speech organs can be seen). A visual display of the sound waves of speech corroborates this statement: The period occupied by the production of the k-sound of 'cow' or 'Kuh' is shown to be silent. Nonetheless, the identity of the sound is clear from the effect it has on contiguous sounds. Similarly in real language situations, even though voiceless stops have no audible reality in themselves other than a period of time, their identity is unmistakable, due ultimately to the effect of movements of the speech organs toward or away from their production. A sound such as the initial sound of English 'shoot' or German 'Schuh', on the other hand, is so distinctive that it can be identified immediately, even in isolation. Indeed, English speakers even utilize this sound alone as a symbol: 'Shhh!'.

The study of speech sounds from the point of view of production is called articulatory phonetics. Here the frame of reference is the vocal mechanism of the producer. Teaching a person to produce a foreign language involves teaching new skills, first of all the skill of accurate pronunciation. Teaching pronunciation, as with teaching most other skills, is generally most economically accomplished by first making the learner aware of the motions and positions required, then having him practice these motions and positions until they become subconscious (or as nearly so as possible). Now in order to instruct others in the production of new sounds, it can be extremely helpful if the teacher is himself aware of the mechanisms utilized in the production of the sounds. This is not to say that the student needs to be able, for example, to identify and name the individual muscles which are in turn contracted and relaxed in the production of a new sound; but if he has some tactile awareness of the organs and mechanisms involved, his job can generally be made simpler.

Language, as we have seen, is a system of elements, limited in number, which can be distinguished from one another by more or less fixed characteristics. Evidence of this is given by the fact that languages having an alphabetic system of writing, English and German among them, are able to represent, more or less unambiguously, all spoken communication by utilizing a rather small set of graphic symbols--the letters of the language's alphabet. Granted, ambiguities are possible within written language, and use of ambiguities and extensions of the normal meanings of words plays a great role in expression--literature, for example--nonetheless all words which fall within the vocabulary of a language can be written without introducing new elements into the alphabet. Thus it is useful to have a system for describing the sounds of language which makes use of a grid composed of a limited number of labels. First let us examine the vocal mechanism and assign labels to portions of the mechanism (the division into portions is sometimes arbitrary in that the division is only fine enough to enable us to identify and label the major sound types of languages), and then use these labels to identify some language sounds.

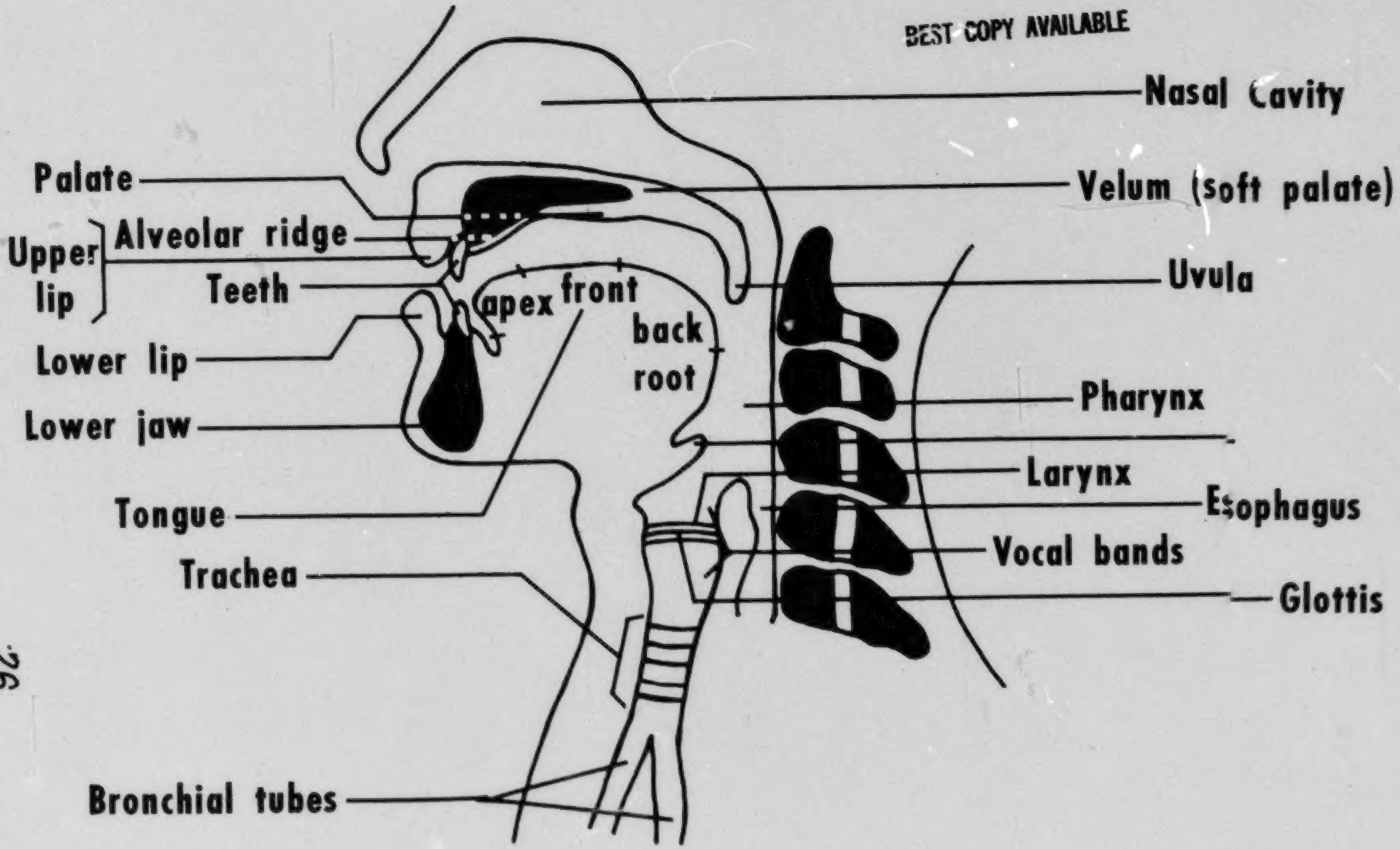
Speech is a means of audible communication which utilizes, in the production aspect, muscles, tissues, organs, and a system all of which have their primary biological function in other processes. Beginning with the source of the air stream (in most sounds), the lungs have as their primary function respiration, that is, the exchange of gasses between the air and the blood stream. In speech, the lungs serve as the storage space for the air which initiates and carries the sounds. Indeed the entire speech tract, including the bronchial tubes, the trachea, the larynx, the pharyngeal, buccal and nasal cavities, have respiration as their primary biological function. In fact, the human body possesses no single organ of speech in the biological sense, i.e., there is no organ whose primary function is to produce speech sounds.

(Refer to page 21a and use transparency)

The air stream leaving the lungs is caused to vibrate, on leaving the body, in patterned ways which set the surrounding air in motion, a kind of motion which is within the realm of sound. That is to say, the organs associated with speech are able to impose on the surrounding air the kinds of vibrations which can be heard, as sound, by a human ear. Let us trace the path of the air stream, from the time it begins moving out of the lungs, until it reaches the outside. Pressure is exerted on the lungs, either by the rib cage or the diaphragm, or by a combination of the two. This pressure causes the air contained within the lungs to escape, provided there are no barriers to its flow, first through the bronchial tubes, which join to form the trachea, or windpipe. The trachea is in effect a tube, made up of a number of incomplete rings of cartilage, one above the other, joined to each other by elastic connective tissue. The cartilaginous rings are open on the back or dorsal side, where the trachea lies along the esophagus. The uppermost ring, however, is complete and is somewhat heavier than the others, resembling a signet ring, with the seal or heavier portion on the dorsal side. It is called the cricoid cartilage, from the Greek word for ring. The cricoid cartilage forms the upper limit of the trachea and the lower limit of the next portion of the tube, the larynx.

The larynx, often called the 'voice box', is composed of several cartilages, and contains the vocal folds, or vocal cords. The largest cartilage is the thyroid cartilage, or shield cartilage.

(TRANSPARENCY)


Nasal Cavity
Palate
Velum (soft palate)
Alveolar ridge
Upper lip
Teeth
Uvula
apex
front
back
root
Lower lip
Lower jaw
Pharynx
Larynx
Tongue
Esophagus
Vocal bands
Trachea
Glottis
Bronchial tubes

Cross Section of the Head Showing the Principal Speech Organs

It supports the vocal folds and the muscles and tissues which adjust the vocal folds. The thyroid cartilage is wrapped around the sides and front of the tube but is not closed in the back. In shape it resembles a plow or cow catcher. The vocal folds are attached to the inner surface of the thyroid cartilage in such a way that they meet at the front but not at the back. The back edges of the vocal folds are attached to a pair of cartilages which are more or less pyramid-shaped, called the arytenoid cartilages. Movements of the arytenoids can cause the vocal folds to stretch and become tense, to join at their inner edges, or to be widely opened as they must be for breathing.

The primary biological function of the larynx is to serve as a stopper for the air stream. The vocal folds are designed in such a way as to be able to prevent air from entering the lungs when the folds are brought tightly together. This stoppage is essential for many movements of the arms, many of the muscles of which have their attachment on or around the rib cage. Lifting heavy objects would be nearly impossible if the vocal folds did not function in this way. Another portion of the muscles which make up the vocal folds, called the ventricular folds or 'false vocal folds', can be closed to prevent air from leaving the lungs, essential in many biological processes, including childbirth and elimination from the alimentary canal.

The larynx opens into a cavity known as the pharynx or pharyngeal cavity. This is the portion of the tube from immediately behind the opening of the larynx up to the opening of the oral and nasal cavities. The pharynx serves the double biological function of being the passage for both air and food. All air entering the lungs, whether through the mouth or nose, must pass through the pharynx, and all food must pass through the pharynx on its way from the mouth to the esophagus.

Beyond the pharyngeal cavity lie the oral and nasal cavities. In speech, the nasal cavity serves as a resonance chamber for nasal sounds, such as /m/ or /n/, and as a secondary resonance chamber for nasalized vowels (which are much more prominent in English than in German). In the biological sense, the nasal cavities serve to house the organs of smell and serve as warming chambers for air that is inhaled through the nostrils.

The oral cavity as such provides resonance cavities which can be changed in shape and size by movements of the tongue, jaw and lips, enabling a person to produce the wide range of vowel sounds which are characteristic of speech. The oral cavity houses the tongue, that very complex, moveable organ which, in conjunction with the roof of the mouth (palate and velum) is responsible for the distinctive characteristics of so many speech sounds. The tongue is the organ of the sense of taste, and is used in the processes of chewing and swallowing.

For the purpose of labeling speech sounds, the roof of the oral cavity is generally divided into the following zones (from front to back): the teeth; the tooth ridge, or alveolar ridge; the palate (the bony portion of the roof of the mouth, from the alveolar ridge back to the fleshy soft palate); the velum, or soft palate; and the uvula, the fleshy, cone-shaped body which hangs suspended from the rear center of the velum. In speech the first three of these zones serve as points of articulation for the various areas of the tongue, and the fourth is used to produced trilled sounds (as in the German uvular "R"). Biologically, the first zone, the alveolar ridge, is the area in which the upper front teeth are anchored; the second and third form the upper portion of the oral cavity and the separation between the oral and nasal cavities: the last, the uvula, is biologically rather useless except perhaps as a sensing organ to triger regurgitation.

Once we proceed from identifying sounds simply as physical phenomena and begin to consider how they pattern and function within a specific language, we begin to move from phonetics to phonemics. Whether a certain sound is termed a consonant or a vowel, for instance, may depend upon what language it occurs in. Generally speaking, a vowel can be defined phonetically as a central resonant oral continuant. (The term 'central' means that the air stream passes over the center of the tongue [back to front] and eliminates the laterals (see page 26); the term 'resonant' indicates that the sound has a harmonic structure, that is, a fundamental frequency and harmonics that are whole number multiples of the fundamental; the term 'oral' indicates that the air stream passes mainly through the mouth cavity, even though in some vowels [nasalized vowels] a portion of the air stream may pass through the nasal cavities; the term 'oral' eliminates the nasals, e.g. [m] and [n], from the vowel category, for while nasal sounds are resonant and continuant, they more often pattern as consonants than as vowels [as in syllabic nasals]; the term 'continuant' implies that vowels are sounds which can be prolonged for a period of time. More simply stated, a vowel is a voiced sound in which the air passes through the oral cavity without obstruction.) Having defined vowel, a consonant can be defined as any speech sound that is not a vowel.

A phoneme is a class of speech sounds in a language such that all members of the class occur in complimentary distribution or free variation. For example, German has several kinds of 'p' sounds: the initial sound in 'passen' is strongly aspirated (symbolized phonetically as [p^h]); the 'p'-sound in 'sparen' is not noticeably aspirated (symbolized [p]); the final sound in 'ab' is not only unaspirated, it is often not even released (symbolized [p˺]). But the environments in which each of these types of 'p'-sound occurs are mutually exclusive, that is, the aspirated [p^h] does not occur often 's'; the unaspirated [p] does not occur initially, nor does the unreleased [p˺], and so on. This kind of distribution is called 'complimentary distribution'. In the word 'ab' the final sound is often unreleased [p˺], but the unaspirated [p], which is released but not followed by a puff of air, can occur and does usually. The occurrence of unaspirated [p˺] at the end of 'ab' does not, however, change the meaning of the word. This phenomenon is known as free variation.

The various kinds of 'p'-sounds, which occur in different environments, are known as 'allophones'. While two languages might each have a phoneme /p/, the kinds of allophones or the distribution of the allophones can differ from language to language and usually does.

IV. English and German Sounds

Having roughly defined vowel and consonant, let us move to a consideration of the sounds of English and German. Consonants are generally classified according to articulator and point of articulation, manner of articulation, and as voiced or voiceless. By designing a grid with articulator and point of articulation along one axis and manner of articulation along the other axis, it is possible to systematically list the consonant sounds of a language. Chart 1 below lists the consonants of English, Chart 2 the consonants of German. The following are brief definitions of the labels that are used in the charts, first the manners of articulation, then the articulator-point of articulation labels:

stop--sound in which the air passage is closed off completely at some point;

nasal--sound in which the oral cavity is closed off completely at some point but the nasal passage is open to the passage of air;

lateral--sound in which the oral cavity is blocked along the center (front to back) by the tongue, but the air is free to pass over one or both sides of the tongue;

flap or trill--sound in which there is a momentary stopage of the air stream (repeated for trill);

fricative--sound in which the air stream is restricted, not by complete closure but by a constriction at some point in the oral cavity, a constriction sufficiently narrow to cause turbulence in the air stream;

semivowel--sound which has the characteristics of a vowel but functions as a consonant in a given language;

bilabial--involving the lower lip as articulator and the upper lip as point of articulation;

labio-dental--involving the lower lip as articulator and the upper teeth as point of articulation;

dental--tip of tongue as articulator and upper teeth as point of articulation;

alveolar--tip or blade of tongue as articulator and alveolar ridge as point of articulation;

palato-alveolar--mid tongue as articulator and front region of palate as point of articulation;

palatal--mid tongue as articulator and mid palate as point of articulation;

velar--back tongue as articulator and velum as point of articulation;

uvular--back tongue as articulator and uvular region of velum as point of articulation;

glottal--vocal folds held tightly together (release of this closure results in the glottal stop which almost always occurs at the beginning of German words which begin with a vowel).

Many of the sound categories represented in the chart can occur as either a voiced sound (vocal folds vibrating) or a voiceless sound (vocal folds open and not vibrating). Where two symbols appear together in a square on the chart, the first represents the voiceless, the second the voiced phoneme. Where a single symbol appears in a square, only one phoneme is found in the language (it is a voiced phoneme except in the case of /h/ for English /ʔ/, /ç/, /x/, and /h/ for German).

Chart 1

English Consonants

(hand-out)

	bilabial	labio-dental	dental	alveolar	palato-alveolar	palatal	velar	uvular	glottal
stop	p b			t d			k g		
NASAL	m			n			ŋ		
lateral				l					
flap or trill									
fricative		f v	θ ð	s z	š ž				h
semivowel	w				j				

Chart 2

German Consonants

(hand-out)

	bilabial	labio-dental	dental	alveolar	palato-alveolar	palatal	velar	uvular	glottal
stop	p b			t d			k g		(ʔ)
nasal	m			n			ŋ		
lateral				l					
flap or trill				(r)				(r)	
fricative		f v		s z	š (ž)	ç	x		h
semivowel	(w)				j				

Vowels are usually charted somewhat differently from the consonants. By considering the position in the mouth of the highest point of the tongue during the production of various vowels, one can place vowels on a grid which lists various tongue heights on the vertical axis and the front-to-back dimension on the horizontal axis. A further consideration necessary in the study of vowels is the disposition of the lips during production. Whereas in English all front and central vowels are produced without noticeable lip rounding, German has both unrounded and rounded front vowels. In both languages the lips are rounded for back vowels (some languages, though, have unrounded back vowels, which will not be considered here). The charts below show the vowel phonemes of English (Chart 3) and German (Chart 4).

Chart 3

English Vowels

(hand-out)

	front (unrounded)	central (unrounded)	back (rounded)
high	iy i	ɨ	uw u
mid	ey e	ə	ow
low	æ	ɑ	ɔ

Other diphthongs: ay aw ɔy

Chart 4

German Vowels

(hand-out)

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	front (unrounded)	front (rounded)	central (unrounded)	back (rounded)
high	i: i	ü: ü		u: u
mid	e: e	ö: ö	ə	o: o
low			a: a	

diphthongs: ai au oi

The following are examples of the vowels of English in words:

/iy/	'beat'
/i/	'bit'
/ey/	'bait'
/e/	'bet'
/æ/	'bat'
/ɨ/	'passes' (second syllable)
/ə/	'but'
/a/	'hot'
/uw/	'boot'
/u/	'put'
/ow/	'boat'
/ɔ/	'caught'
/ay/	'bite'
/aw/	'bout'
/ɔy/	'boy'

The German vowels are illustrated below as they occur in words:

/i:/	'bieten'
/i/	'bitten'
/e:/	'beten'
/e/	'Bett'
/ü/	'fühlen'
/ü/	'füllen'
/ö:/	'Goethe'
/ö/	'Götter'
/ə/	'bitte' (second syllable)

/a:/	'Tag'
/a/	'Mann'
/u:/	'spuken'
/u/	'spucken'
/o:/	'Ton'
/o/	'Tonne'

In the sessions that follow, comparisons will be drawn between the English and German consonant and vowel systems. Similarly, the suprasegmental features of the two languages will be compared, and in all of these comparisons, similarities will be discussed, as well as differences in the two languages' systems, with an eye toward easing the task of teaching pronunciation, and making it easier for students to acquire an accurate pronunciation of German.

Assignment: Read chapters 1-5 of Moulton.

SESSION II

TOPIC	TIME	MATERIALS	PAGE
Review of previous session and reading assignment from Moulton	30 min.		40
I. Teaching pronunciation	20 min.	Facial Diagrams	46
A. A phonetic or a phonemic approach?			
B. Using the results of a linguistic contrastive analysis in the teaching of pronunciation			
II. Consonants	60 min.		49
A. General considerations 1. Voiced vs. voiceless 2. Manner of articulation 3. Articulators and points of articulation 4. Other considerations (duration, syllabicity, type of release) 5. Phonemic contrasts (what is a contrast?; how does one identify a contrast?)			
B. English consonants 1. Characterization and classification 2. Catalog of English consonants	30 min.		
BREAK	20 min.		
C. German consonants 1. Characterization and classification 2. Catalog of German consonants	20 min.		

SESSION II (continued)

TOPIC		TIME	MATERIALS	PAGE
D.	Comparison and contrastive analysis of English and German consonants 1. Obvious differences in the two systems 2. Less obvious but important differences 3. Implications of differences: potential types of pronunciation errors a. Phonetic b. Phonemic c. Allophonic d. Distributional	40 min.		
III.	Pronunciation Drill Tape I	45 min.		71
A.	Introduction to tape		Moulton	
B.	Phonemic contrasts		p. 21	
C.	*ach-Laut* vs. *ich-Laut*		p. 22	
D.	*ach-Laut* in various environments and contrasted with /k/		p. 28	
E.	*ich-Laut* in various environments and contrasted with *ach-Laut*		pp. 30-31	
F.	German /l/ compared with English /l/		p. 34	
G.	German /r/ how-to drill		pp. 38-39	
H.	German /r/: intervocalic vs. post-vocalic varieties		p. 39	
I.	German /r/ compared with English /r/, English /l/, and German /l/		p. 40	
J.	German /s/ compared with English /s/		p. 41	

SESSION II (continued)

TOPIC	TIME	MATERIALS	PAGE
K. Voiceless stops: German and English		pp. 42-43	
L. English intervocalic /t/: problems for students		pp. 43-44	
M. Consonant clusters		pp. 45-47	
N. Voiced-voiceless alternations in German		pp. 49-51	
Assignment - Reread Moulton, Chapters 1-5			82
Read Moulton, Chapters 6-9			
Peer Teaching Assignments			
Evaluation			

Review of Previous Session. (A number of questions can be asked of the participants. As with most review questions, there is usually no single correct answer but sample answers of the kind that should be arrived at eventually are provided in parentheses. As participants supply answers, instructor should comment on their appropriateness, completeness and applicability as regards the language teaching situation.)

1. What is Phonetics?

   (The study of the sounds of language, not necessarily a specific language. Acoustic phonetics deals with the effects that speech sounds have on the surrounding medium [most often, the air]. Auditory phonetics deals with the perception of speech sounds. Articulatory phonetics studies the production of speech sounds.)

2. Of what use can phonetics be to the language teacher?

   (Help in explaining production of sounds. A teacher with some phonetic training can be a much better judge of student production of new sounds, can often pinpoint trouble area and offer brief, useful, immediate help. An awareness of the various mechanisms utilized in the production of speech sounds is a necessity to the teacher if he is to judge and offer remedial help.

3. (from Moulton, Chapter 1) Why is it so hard for American students to produce the /x/ of 'doch', the /ü:/ of 'Tür', and other new sounds?
(Muscular habits developed through countless hours of producing English sounds have made the production of English sounds automatic, and new sounds require new habits. The new habits, the use of new muscles or new combinations of muscles, must be acquired, at first through more or less conscious control which hopefully becomes automatic eventually.)

4. (from Moulton, Chapter 1) What is the difference between phonetics and phonemics?
(Phonetics seeks to identify every feature of a speech sound, but phonemics deals only with those features which are distinctive. The phonemic difference between /p/ and /b/, for example, is mainly the absence or presence of voicing, but the phonetic difference between the p-sounds of English or German and the b-sounds are many: some p-sounds are aspirated, or followed by a puff of air, but no b-sounds are aspirated; p-sounds are generally shorter in duration than b-sounds; and so on. But the one feature which can always be used to decide whether a sound is /p/ or /b/, in English as well as German, is the presence or absence of voicing, that is, whether the vocal folds are vibrating or not.

5. (from Moulton, Chapter 2) How are consonants usually identified and classified?
   (According to presence or absence of voicing, place of articulation and manner of articulation, e.g., voiceless bilabial stop--[p]; voiced dental fricative--[ð].)

6. What is responsible for the presence or absence of voicing?
   (The vocal folds. If they are held open, air passes through with little or no resistance. If they are held closed with only enough muscular tension that the air stream can periodically force its way through, causing a rapid series of openings and closings, the result is a sound which is called 'voiced'. Usually this alternate opening and closing of the vocal folds occurs between 65 and 100 times per second (65 to 100 cycles per second) for adult male voices, 120-160 times per second for adult female voices, and between 200 and 500 times per second for young children's voices.)

7. Identify the articulators and points of articulation that are necessary in the identification of German and English sounds.
   [A transparency of a cross section of the head should be shown. Participants should have hand-outs with cross section of head but no labels. Labels can be added as they are discussed. After going through all

labels, another transparency can be shown, this one with labels already added.]

(articulators: lower lip; tongue tip[or apex], blade, front, back; glottis [for glottal stop]; points of articulation: upper lip, upper teenth, alveolar ridge, palate, velum [soft palate], uvula; in addition, the velic and the back wall of the nasal pharynx should be mentioned, since a closure here makes sounds non-nasal, and an opening makes sounds nasal if there is another closure.)

8. What are the manners of articulation which are used in the production of English and German consonants? (stop, fricative, nasal, lateral, trill,affricate, sibilant, flap; it should be pointed out that a sibilant is a kind of fricative and is listed separately by Moulton in order to simplify later phonemic considerations; likewise, a flap is a kind of stop, and a trill is a rapid series of flaps or stops, and that these three categories are listed separately for simplification later on. An affricate, in the phonetic sense, is a stop followed immediately by a fricative that is produced at the same point as the stop, and here the category is mentioned because English has two affricates which function phonemically in much the same way as the simple stops.)

9. Moulton separates siblilants from the other fricatives in order to be able to present more concise charts of the consonant phonemes of English and German. Bearing in mind that English has a pair of stop-consonant phonemes which phonetically are alveolar rather than dental, fill in the consonant phonemes of English in Chart 1 (from Moulton) and the consonant phonemes of German in Chart 2 (from Moulton).

Chart 1

	labial	dental	palatal	velar
stops				
fricatives				
sibilants				
nasals				
other				

Chart 2

	labial	dental	palatal	velar
stops				
fricatives				
sibilants				
nasals				
other				

(Distribute blank charts which participants should fill in as well as they can. Provided below are filled-in charts, which can be gone over together so that participants can see whether they have filled in their charts correctly or not.)

Chart 1

	labial	dental	palatal	velar
stops	p b	t d	č ǰ	k g
fricatives	f v	θ ð		
sibilants		s z	š ž	
nasals	m	n		ŋ
other	w l r j h			

Chart 2

	labial	dental	palatal	velar
stops	p b	t d		k g
fricatives	f v		ç	x
sibilants		s z	š ž	
nasals	m	n		ŋ
other	l r j h			

(Participants' attention should be called to the differences between the two charts, with the caution that these differences are on the phonemic level and do not by any means indicate all the differences between the consonant systems of English and German.)

I. Teaching Pronunciation

A. A Phonetic or a Phonemic Approach?

In considering the problems involved in teaching accurate pronunciation of German to speakers of English, the teacher must bear in mind that the student has mastered all the phonetic detail of English as well as the phonemic system, and that he has been using these speaking skills for so many years (since age four or five at least) that they have become not only automatic but indeed subconscious. The average speaker of a language at the age of a junior or senior high school student is unaware of the various portions of the speech mechanism and can consciously control them only with great difficulty and much conscious effort. If the student is to achieve any mastery of the sound system of a second language, the teacher must be aware of the problems facing the student. With new sounds, such as the /ü:/ or /x/ of German, the student usually has less difficulty than with familiar sounds in unfamiliar environments, such as the light (non-velarized) variety of /l/ following back vowels as in German 'voll' or 'fallen'.

In the case of new sounds, a person tends to try to interpret in terms of his own sound system. If a person hears the [ü] sound of German 'kühl' and tries to reproduce it, the first attempt will probably be something like English 'keel' since the vowel in 'keel' is the closest thing English has to the German high front rounded vowel. If the student sees 'kühl' written before he has associated the letter 'ü' with the sound [ü], he will probably be tempted to try to produce some kind of high back rounded vowel due to the influence of the English spelling habits in such words as 'cute' or 'cube'. In either situation, though, since English has no front rounded vowels, the student must acquire a new set of habits, and effort spent toward this end will not be interfered with by existing habits which require the production of other related sounds in the environment in question.

The teaching of pronunciation must take into account both the phonetic detail of the native and target languages and the phonemic systems of the two. The student needs to be able to produce the sounds of German, and the degree of accuracy that he is able to achieve, the degree of "nativeness" which his pronunciation exhibits, must be measured in phonetic terms. A phoneme is, after all, a non-pronounceable abstraction, since it is a class of sounds. The actual sounds that are produced by speakers are realizations of sub-members of these sound classes, the allophones. Eventually the student will come to group sounds together into classes, will begin to internalize the phonemic system of German, but when he is actually performing in the language, he needs to be able to perform with phonetic accuracy.

B. Using the Results of a Contrastive Analysis in the Teaching of Pronunciation.

By first analyzing the sound structure of the native language and the target language and then comparing them point by point, one can predict with a fair degree of assurance those areas in which a student is most likely to have difficulty. A comparison of the consonant systems of English and German (as in Moulton, Chapter 5) shows, for example, that both English and German have a bilabial nasal phoneme, /m/, and that the allophonic distributions are very similar in the two languages. On the basis of such a comparison, it is safe to predict that English speakers will have little difficulty with German /m/, or that German speakers will have little difficulty with English /m/.

The situation is somewhat different for the German /r/ phoneme, however. English has a phoneme /r/ also, but it is quite different from the German /r/ in its phonetic reality. German /r/ following a vowel, in word-final position or before a consonant (as in 'der' or 'fährt') is usually pronounced as a vocalic off-glide toward a lower-back unrounded vowel, [ʌ]. German /r/ preceding a vowel or between vowels (as in 'Reise' or 'Toren') is, for most speakers of German, a voiced uvular trill, [R], or a voiced uvular fricative, [ɣ] (though some speakers of German use an apicoalveolar trill, or even a flap which is phonetically similar to the voiced 't' of English 'better', 'butter', etc.). The various German /r/ sounds, which are all represented in the writing system with the letter 'r', bear almost no phonetic resemblance to English /r/ sounds, which are also represented in writing with the letter 'r'. A comparison of the German and the English consonant systems shows the differences between German /r/ and English /r/ and indicates that there is at least a potential problem for the English speaker learning German when it comes to the German /r/ sounds.

II. Consonants.

Consonants are generally defined as non-vowel sounds. The reason for this apparently negative definition lies in the nature of consonants. The accoustic features of consonants are so diverse that it is much simpler to define vowels first and then to lump all other speech sounds into a single category. Moulton summarizes the various kinds of consonants into eight groups: stops, fricatives, nasals, laterals, trills, affricates, sibilants and flaps. Note that the common feature of consonants is that there is an audible obstruction in the air stream. The International Phonetic Association (the I.P.A.) identifies one other category of consonants, viz., frictionless continuants and semivowels. Further, the I.P.A. groups trills and flaps together, and lists sibilants as a kind of fricative, which indeed they are. The I.P.A. also divides laterals into two groups, lateral fricatives and lateral non-fricatives (a distinction which is not important to either German or English, since neither language has lateral fricatives).

Consonant sounds can be voiced or voiceless, that is, the vocal cords can either be vibrating (voicing) or can be held open sufficiently to allow the air stream to pass unhindered through the opening of the glottis (the space between the vocal cords when they are open). Although any consonant can have a voiced and a voiceless variety (as with [p] - [b]), the nasals, laterals, trills and flaps are usually voiced (at least in English and German), thus only one symbol is usually recognized for each type of these sounds. In a phonetic transcription, a voiceless variety of one of these sounds is usually indicated by a small open circle beneath the symbol for the voiced variety (ex.: [m̥]).

A stop is a speech sound in which the air stream is stopped completely, both by having the velic closed so that no air can pass through the nasal passages, and by a complete closure at some other point in the vocal tract. A stop can be unreleased, as in English 'Stop!', [stap˺], or it can be released, usually by opening the closure in the oral cavity. (Nasal release is also possible, as in English 'kitten' or German 'haben' [ha:bm̩].)

A fricative is a sound in which the nasal passage is closed at the velic, and there is a constriction in the vocal tract sufficient to cause turbulence in the air stream. The fricative [f], for example, is produced by closing the velic, forming a narrow slit between the lower lip and the upper teeth, and forcing the air to pass through this slit. The constriction in the path of the air stream at the point where the lip and teeth are together causes the air to vibrate at a rather high frequency and in a non-periodic manner (that is, a fricative is a 'noise' in the accoustic sense of the word, a non-periodic or irregular vibration spreading over a range of frequencies; the noise of

[f] is concentrated in an area from 6000 to 8000 cycles per second).

A nasal is a sound in which the velic is open but there is a closure somewhere in the oral cavity. Nasals are usually voiced but voiceless varieties occur following voiceless fricatives in such words as English 'snow' or German 'Schnee'.

A lateral is a sound in which some portion of the center line of the tongue (front to back) is against the roof of the mouth, but one or both sides of the tongue is not touching, so that the air stream is diverted to the side(s) of the mouth. In English and German, the laterals are usually voiced, but here again voiceless varieties occur following other voiceless consonants, as in English 'play', German 'Platz'.

A trill is an intermittent stop series, i.e., either the tongue tip or the uvula is caused to alternately close and open the air stream passage by the force of the air stream passing over it.

A flap is one cycle of a trill, i.e., the tongue tip or the uvula is caused to make one closure and one opening in rapid succession.

A sibilant is a fricative in which the turbulant air stream is directed against the top of the lower teeth. The term is merely a convenient general term for [s],[š], [z], and [ž] and similar sounds. (Acoustically the sibilants are the noisiest fricatives, with noise in a wide band of frequencies, roughly from 3500 to 8000 cycles per second.)

An affricate is not really a single sound but a series of sounds: a stop followed by a homorganic (produced at the same point as the stop) fricative. The term affricate is not a phonetic term but a phonemic one, since the same series of sounds might function as a unit phoneme in one language but as a series of two phonemes in another.

The I.P.A. classification "frictionless continuants and semivowels" contains the following sounds that are used in English or German: [w], [ɥ], [j] and [ɹ]. [ɹ] is the initial sound in English 'run', 'read', etc., for most speakers of American English. [j] can be used as the initial sound of English 'yes', German 'ja'. [ɥ] is the initial sound in a careful pronunciation of 'when', 'which'.

(Use Transparency)

Consonants are further classified according to the articulator (the movable portion of the speech mechanism) used in production and the point of articulation (the immovable portion of the speech mechanism with which the articulator articulates). The consonants of English and German can be described in terms of these articulators: lower lip, tongue tip (also called the apex), tongue blade (front of top portion of the tongue, the portion of the tongue which lies below the alveolar ridge when the tongue is at rest in the mouth), front of dorsum of tongue (area of tongue which lies below the palate when tongue is at rest), and back of dorsum of tongue (area of tongue which lies below the velum when tongue is at rest). The following points of articulation are needed to describe English and German consonants (following each point of articulation in parentheses are the articulators which are used with that point of articulation; the underlined term is the adjective used to describe a sound produced with a given articulator and point of articulation): upper lip (articulator is lower lip: bilabial), upper teeth (articulator can be lower be lower lip: labio-dental, or tongue tip: apico-dental or simply dental), alveolar ridge (either tongue tip: apico-alveolar or tongue blade: dorso-alveolar), palate (front of dorsum of tongue: dorso-palatal), velum (back of dorsum of tongue: dorso-velar), and the uvula (back of dorsum of tongue: dorso-uvular).

In addition, the velic (term used to identify the upper surface of the rear portion of the velum) must be considered, since when it is firmly pressed against the wall of the nasal pharynx, all air is directed through the oral cavity, resulting in oral sounds (i.e., sounds which are non-nasal). Finally, the glottis (term used to identify the opening between the vocal folds) serves in the production of a consonant sound which occurs in both English and German, the sound known as the glottal stop. This is the sound that occurs before vowels in German words that are written with an itital vowel (e.g., 'ab', 'unter', 'Eule', etc.). It occurs also in English as the initial and medial consonant sound in 'Oh,Oh' , in certain pronunciations of the word 'sentence' (Instructor: give Northern pronunciation of 'sentence': [ˈsɛ̃n ʔn̩s]), in the British pronunciation of 'bottle' [ˈbɔʔl̩], etc. A glottal stop before an initial vowel in German is an automatic feature of the vowel, that is to say, it always occurs. If it is omitted, as is done by many English speakers who have learned German, the native speaker interprets this as a foreign accent. The prevocalic glottal stop in English is an optional feature. It can be used or omitted without signaling any meaning difference or indicating any "non-nativeness." The glottal stop which occurs in some speakers' pronunciations of words like 'sentence' is a substitute for [t], perhaps even allophone of /t/.

There are a number of other features which consonants can possess. The duration of a consonant, its length in terms of time, is a distinct feature which may vary from language to language. In some languages consonant length may be phonemic, in that a short consonant contrasts with a long consonant that is otherwise identical. In German and in English, this is not the case, though each consonant has its own normal length, which may vary according to context. Nonetheless, aberrations in the durations of consonants contribute to "foreign accent" features.

Certain consonants can be syllabic, that is , they can carry stress and function as independent syllables. For German and English, these are [m̩], [n̩], [ŋ̩] and [l̩]. Examples are

[m̩]	'captain'	[ˈkʰæpm̩] ;	'haben'	[ˈhaˑbm̩]
[n̩]	'beaten'	[ˈbɪⁱtn̩] ;	'bitten'	[ˈbɪtn̩]
[ŋ̩]	'bacon'	[ˈbeⁱkŋ̩] ;	'stecken'	[ˈštɛkŋ̩]
[l̩]			'Viertel'	[ˈfiˑʌtl̩]
[ɫ̩]	'battle'	[ˈbæɾɫ̩]		
	or	[ˈbæt̬ɫ̩]		

Finally, one must consider the type of release in the case of stop consonants. A stop may be unreleased, as often occurs with English voiceless stops in final position ('cap' [kʰæp˺], 'net' [net˺], 'tick' [tʰɪk˺]) and occasionally with German final stops. In English, both voiced and voiceless final stops can be unreleased (remember that in German, all final stops are voiceless, even if spelled with the letter that elsewhere spells the voiced stop). An initial voiceless stop before a vowel is aspirated, in both German and English, i.e., the stop is followed by a puff of air before the voicing of the vowel begins. Voiced stops are not aspirated in either language.

Medial voiceless stops, i.e., stops that occur between vowels, can be unaspirated (for some speakers, slightly aspirated instead of unaspirated in this environment) if they follow a stressed vowel, or strongly aspirated, just as with initial stops, if they precede a stressed vowel.

The last kind of release that needs to be considered for German and English is the kind of release that occurs when a stop is immediately followed by another consonant, particularly a homorganic nasal or lateral. In the case of stop plus nasal, the release is a nasal release, that is, the articulation in the oral cavity for the stop is held, and the velum is lowered to allow the stopped air stream to escape through the nasal cavities (for examples see above concerning syllabic nasals). Before the lateral consonant /l/, only the stops /t/ and /d/ are homorganic. In such environments, only a portion of the articulation is released to allow the stopped air stream to escape--either side of the tongue or both sides simultaneously. (On this point, Moulton states that /k/ and /g/ should be considered along with /t/ and /d/, but since neither the /l/ of German nor the /l/ of English is articulated at the same point as the /k/ and /g/ are articulated, the sequences /kl/ and /gl/ require a separate articulation for the /l/, just as do the sequences /pl/, /bl/, /fl/, /sl/, /šl/, etc. Thus there is no real reason to consider /kl/ or /gl/ as any kind of special case: the release of /k/ or /g/ before /l/ is no different than the release of /k/ or /g/ before any other sound.)

Phonemics, as opposed to phonetics, treats of classes of sounds withing a single language. A phoneme is a class of sounds which contrasts with all other classes of sounds in the language under consideration. The members of each class have many features in common, such as point and manner of articulation, or manner of articulation and voicelessness, etc. As an example, the /h/ of German and the /ŋ/ of German do not at any place in the language occur in the same environment. /h/ occurs only preceding a vowel, and /ŋ/ occurs only following a vowel. The two are not grouped into a single phoneme, however, since they do not share any common features; /h/ is a voiceless oral fricative, and /ŋ/ is a voiced nasal. On the other hand, the various kinds of /h/ sounds in German, the allophones of /h/, vary considerably in point of articulation; the /h/ sound in 'hieβ' is very different from the /h/ sound of 'Hut'. (A simple experiment can serve to prove this point. Say 'hieβ' several times, until you know where you are producing the /h/ sound. Then do the same thing for 'Hut'. Now produce just the /h/ sound for 'hieβ', without even making the vowel and final fricative. Repeat for 'Hut'. The /h/ sound will be voiceless and should sound like a kind of whisper. When you are sure that you can produce the /h/ sound for either 'hieβ' or 'Hut', choose one and produce it for someone who does not know which one you have chosen. Ask that person to tell you what vowel sound would follow if you were to finish the word you had started. The other person should be able to guess the vowel sound without error, even if you perform the experiment several times, choosing one /h/ sound or the other at random.) Similarly, the /h/ sounds that precede all the other vowels of German are different from one another, so different that a listener should be able to predict almost without fail the vowel sound that will follow the /h/ sound. Why then are all these /h/ sounds, which are so different from one another phonetically that a listener can guess the vowel that will follow, grouped into a single sound class, a single phoneme? They are so grouped together because they have many features in common: All are voiceless, all are fricatives, and all are, in a sense, voiceless vowels (in other words, all have enough features of the vowel that will follow that they can be used to identify the following vowel even before it is actually produced). In addition, the various /h/ sounds are in complimentary distribution (or mutually exclusive distribution). The /h/ sound that occurs in 'hieβ' never occurs in the production of 'Hut' and vice versa; the same is true for the other /h/ sounds: The type of /h/ sound that occurs in 'Hitze' never occurs in 'hoch', the type of /h/ sound that occurs in 'haben' never occurs in 'Hüte', etc.

There are several different procedures for arriving at an inventory of the phonemes of a language, but these need not concern the language teacher. (Those interested in pursuing the various methods of phonemic analysis might consult the following works for an introduction into the field: H.S. Gleason, *An Introduction to Descriptive Linguistics*; A. A. Hill, *Introduction to Linguistic Structures*; W. N. Francis, *The Structure of American English*; K. A. Pike, *Phonemics*; R. P. Stockwell and J. D. Bowen, *The Sounds of English and Spanish*, R. W. Langacker, *Language and its Structure*; N. Chomsky, The Sound Pattern of English; R. Jakobson, C. G. M. Fant, and M. Halle, Preliminaries to Speech Analysis.) A practical method of identifying phonemes is to seek out minimal pairs. A minimal pair is a pair of words in a language which differ by only one sound, such as English 'bill' and 'pill', German 'gut' and 'Hut'. In Chapters 3 and 4, Moulton presents lists of the consonant phonemes of English and German, together with enough minimal pairs to establish twenty-four consonant phonemes for English, and twenty-one for German. (There is some debate as to whether /ç/ and /x/ are separate phonemes or allophones of the same phoneme, but this is not really important as far as the teaching of German in the classroom is concerned, since both of the sounds are new to the English speaker and must be taught as such.)

A phonemic contrast can be identified by means of a minimal pair. Given a pair of words which differ phonetically in only one segment, if speakers of the language identify the two words as "different words," the two sounds which are different are separate phonemes. For example, consider these two utterances: [kʰæpʰ] and [kʰæp˺] (the first with an aspirated stop in the final position, the second with an unreleased stop). No native speaker of English would consider these two as "different words." Then consider the pair [pʰæk˺] and [bæk˺]. Native speakers would agree unanimously that these two are different. Thus [pʰ] and [b] are members of separate phonemes since they contrast in a minimal pair, but [pʰ] and [p˺] are not members of separate phonemes, since they do not contrast in a minimal pair. The only question left to be asked for this example, then, is whether [pʰ] is really a single sound type in English, that is, whether or not the aspiration (symbolized by the raised letter 'h' in the phonetic notation) is a separate sound or belongs with the 'p'-sound. Since both [kʰæpʰ] and [kʰæp˺] are acceptable to native speakers as normal-sounding pronunciations of the word 'cap', it is safe to assume that the aspiration, if it is present following [p], is, within the structure of English, a part of the 'p'-sound. Further, [p] and [b] can be shown to contrast in an intervocalic position in which the aspiration is absent from the [p]: 'Mable' ['meⁱbɨ̩] and 'maple' ['meⁱpɨ̩] would be identified as "different words" by native speakers of English, and in this pair, aspiration is not present, so it is not just the aspiration which differentiates 'pack' and 'back'. (An additional but not scientifically reliable verification is the fact that the intuitive feeling of linguistically naive native speakers is that the final sounds of [kʰæpʰ] and [kʰæp˺] are the same sound (even though they are phonetically different and some languages indeed use this difference phonemically), but that the initial consonant of [pʰæk˺] and [bæk˺] are different sounds, as are the medial consonant sounds of [meⁱpɨ] and [meⁱbɨ].

For phonemic purposes and for the purpose of comparing the English consonant system with the German consonant system, it is possible to classify the English consonants by using two sets of labels, one set for manner of articulation (stops, fricatives, sibilants, nasals, and other), and the other set for general place of articulation (labial, dental, palatal and velar). The chart which was worked out at the beginning of Session II contains all the consonants of English:

Chart 1

	labial	dental	palatal	velar
stops	p b	t d	č ǰ	k g
fricatives	f v	θ ð		
sibilants		s z	š ž	
nasals	m	n		ŋ
other	w l r j h			

A complete listing of the consonant phonemes of English follows, with occurrences of various allophones of each phoneme in initial, medial and final position, when these exist. (Note that /ž/ and /ŋ/ do not occur in initial position. Note also that /j/, /w/ and /h/ show only examples of initial position. The reason for this is that the phonemes /j/, /w/ and /h/, when they occur in medial or final position, are vocalic off-glides. These environments will be considered in the section dealing with vowels, in a later Session.)

/p/	/'pel/	pail	/'tæpɨŋ/	tapping	/'rɨp/	rip
/b/	/'bel/	bail	/'tæbɨŋ/	tabbing	/'rɨb/	rib
/t/	/'tel/	tail	/'lætɜ/	latter	/'rɨt/	writ
/d/	/'del/	dale	/'lædɜ/	ladder	/'rɨd/	rid
/č/	/'čen/	chain	/'bæčɨz/	batches	/'rɨč/	rich
/ǰ/	/'ǰen/	Jane	/'bæǰɨz/	badges	/'rɨǰ/	ridge
/k/	/'kel/	kale	/'bækɨŋ/	backing	/'pɨk/	pick
/g/	/'gel/	gale	/'bægɨŋ/	bagging	/'pɨg/	pig
/f/	/'fel/	fail	/'lʌfɨŋ/	luffing	/'lif/	leaf
/v/	/'vel/	veil	/'lʌvɨŋ/	loving	/'liv/	leave
/θ/	/'θai/	thigh	/'iθɜ/	ether	/'loθ/	loath
/ð/	/'ðai/	thy	/'iðɜ/	either	/'loð/	loathe
/s/	/'sil/	seal	/'resɜ/	racer	/'rais/	rice
/z/	/'zil/	zeal	/'rezɜ/	razor	/'raiz/	rise
/š/	/'šel/	shale	/'æšɜ/	Asher	/'ruš/	ruche
/ž/			/'æžɜ/	azure	/'ruž/[1]	rouge
/m/	/'mel/	mail	/'sɨmɜ/	simmer	/'ræm/	ram
/n/	/'nel/	nail	/'sɨnɜ/	sinner	/'ræn/	ran
/ŋ/			/'sɨŋɜ/	singer	/'ræŋ/	rang
/l/	/'len/	lane	/'mɨlɜ/	miller	/'tail/	tile
/r/	/'ren/	rain	/'mɨrɜ/	mirror	/'tair/	tire

/j/	/'jel/	Yale
/w/	/'wel/	wail
/h/	/'hel/	hail

The same two sets of labels which were used to classify the consonants of English are adequate for classifying the consonant phonemes of German. Again, the chart which was worked out at the beginning of Session II contains all the consonant phonemes of the language:

Chart 2

	labial	dental	palatal	velar
stops	p b	t d		k g
fricatives	f v		ç	x
sibilants		s z	š ž	
nasals	m	n		ŋ
other	l r j h			

The following list illustrates occurrences of the German consonant phonemes in initial, medial and final position, when occurrences in these environments exist in the language. (Note that /b/, /d/ /g/, /v/, /z/, /ž/, /j/ and /h/ do not occur in final position. In fact, the only voiced consonants which occur in final position in German are the nasals /m/, /n/ and /ŋ/, and /l/ and /r/. In addition, /x/ and /ŋ/ do not occur in initial position. Note further that Moulton states that a minimal pair for initial /š/ and /ž/ seems to be impossible to find, and that a pair such as /ši:r/ 'schier' vs. /ži:ro:/ 'Giro' shows the phones in contrast before /i:r/, thus establishing their phonemic status. While this is true, it is also possible to use the pair /ši:ro:/ vs. /ži:ro:/, and subject it to the native-speaker reaction test: "Are these two words the same or different?" The first reaction might be that the native speaker doesn't know what /si:ro:/ means, but if one can convince him that the meaning is unimportant, the native speaker will respond that /ši:ro:/ and /ži:ro:/ are "different words," due to the fact that, within the structure of the sounds of German, /š/ and /ž/ are indeed separate and real phonemes.

/p/	/'pạsə/	passe	/'raupən/	Raupen	/'rị:p/	rieb
/b/	/'bạs/	Baß	/'raubən/	rauben		
/t/	/'tạsə/	Tasse	/'bạ:tən/	baten	/'rị:t/	riet
/d/	/'dạs/	das	/'bạ:dən/	baden		
/k/	/'kạsə/	Kasse	/'hạ:kən/	Haken	/'zị:k/	Sieg
/g/	/'gạsə/	Gasse	/'hạ:gən/	Hagen		
/f/	/'fạsə/	fasse	/'họ:fə/	Höfe	/'raif/	reif
/v/	/'vạs/	was	/'lọ:və/	Löwe		
/s/	/sa'tẹ^{n}/	Satin	/'raisən/	reißen	/'rais/	Reis
/z/	/'zạts/	Satz	/'raizən/	reisen		
/š/	/'šạts/	Schatz	/'raušən/	rauschen	/'rauš/	Rausch
/ž/	/žẹ:'nị:/	Genie	/'rạ:žə/	Rage		
/ç/	/'çị:na/	China	/'raiçən/	reichen	/'raiç/	reich
/x/			/'rauxən/	rauchen	/'raux/	Rauch
/m/	/'mạsə/	Masse	/'hẹmən/	hemmen	/'rạm/	Ramm
/n/	/'nạsə/	nasse	/'hẹnən/	Kennen	/'rạn/	rann
/ŋ/			/'hẹŋən/	hängen	/'rạŋ/	rang
/l/	/'lạsə/	lasse	/'kọ:lə/	Kohle	/'vịl/	will
/r/	/'rạsə/	Rasse	/'bọ:rə/	bohre	/'vịr/	wirr
/j/	/'jạkə/	Jacke	/'kọ:jə/	Koje		
/h/	/'hạsə/	hasse				

A first glance at the charts of consonant phonemes for German and English shows that English has five consonant phonemes which German does not have, and that German has two consonant phonemes which English does not have. The two dental fricatives, /θ/ and /ð/, are not likely to present any problem when the English speaker is learning German, since the nearest sound to /θ and /ð/ are the labial fricatives /f/ and /v/, and the post-dental or alveolar fricatives /s/ and /z/. Since both German and English have both sets of fricatives, and since they are fairly close phonetically from language to language, there is little chance that an English speaker would interpret either a German /f/ or a German /s/ as resembling an English /θ/, or a German /v/ or a German /z/ as resembling an English /ð/. (For a German speaker learning English, however, the /θ/ and /ð/ of English present, at the early stages at least, a considerable problem, since German has no interdental fricative, and the German ear therefore tends to interpret the English /θ/ and /ð/ as /s/ and /z/, the German sounds which are closest to these English sounds in acoustic and articulatory features.)

The /č/ and /ǰ/ of English do not present any great problem, either, since they closely resemble the German sequences /tš/ and /dž/, in such items as 'Deutsch' and 'Dschungel'. (Moulton states in Chapter 5 that German /š/ and /ž/ must have lip rounding as a concommitant feature, even when they occur in the clusters /tš/ and /dž/. Most speakers of English have some degree of lip rounding in their English /š/ and /ž/, and in their /č/ and /ǰ/, so it is usually safe to tell students to use their English /č/ and /ǰ/ for German /tš/ and /dž/. The /tš/ cluster in German is relatively infrequent, and the /dž/ cluster occurs in only a few items, all of them loan words (words borrowed from other languages).

The /w/ of English, which is spelled with the letter 'w' in most situations in English, is a problem only where the writing system of German is concerned. The German letter 'w' represents the sound /v/ in all but a few foreign words, mostly proper names, and in these latter instances, the letter represents not [w] but [f] or vowel length.

From comparing the consonant phoneme charts of German and English, it appears that the only problems for English speakers learning German, as far as new and unfamiliar sounds are concerned, would be the /ç/ and /x/ fricatives. Actually, the German /r/ must be added, since it is phonetically quite different from the English /r/. (The choice of the symbol 'r' to represent the German phoneme is more one of convenience than of adherance to phonetic actuality. Most transcriptions of the sound spelled with the letter 'r' in German use the symbol [R] for one allophone, [ʌ] for another, but since we are dealing with a phonemic transcription here, and since any phonemic inventory includes a listing of allophones transcribed or described phonetically, the choice of 'r' to represent the sound is perfectly valid.)

A comparison of the allophones of the various phonemes of the two languages presents some other less obvious but very important differences between German and English consonants. The German voiced stops do not occur in final position, i.e., they occur only initially or between vowels. Thus in the form 'haben', the medial consonant is a [b], but in the form 'habt' or the shortened form of 'habe' which occurs in conversation, e.g., "Ich hab' ihn schon gesehen," the consonant may be pronounced [p], even though still spelled with a 'b'. The same is true for /d/. In the case of /g/, some native speakers of German use [x], others use [k] when the preceding vowel is /a/, /o/, /u/ or /au/. Thus 'Tag' could be either [t^ha:x] or [ta:k]. When the preceding vowel is /i/, /e/, /ai/ or /oi/, /g/ becomes [ç] for most speakers of German.

There is a difference between the English /t/ and the German /t/ in that English has, for most speakers, a voiced intervocalic allophone, which German does not have. The voiced [t̬], which occurs between vowels, the first of which is stressed, is illustrated by such items as 'butter', 'bitter', 'latter'. If this sound is used in pronouncing German 'Vater', for example, the native speaker would probably interpret the word to be 'Fahrer', since the only German sound which is phonetically similar to English [t̬] is the flapped 'r' which some German speakers use instead of the uvular [R].

The German fricatives and sibilants exhibit the same feature as the stops in final position, i.e., voiced fricatives do not occur in final position. For example, the medial consonant in 'braver', as in "Er ist ein braver Kerl," is [v], but in the simplest form of the adjective, 'brav', the fricative is [f]; thus [bra:vʌ], but [bra:f].

Phonetically the German fricatives and sibilants present no serious problems for the English speaker (with the exception of the aforementioned /ç/ and /x/, of course). The /š/ of German (as well as the infrequent /ž/) is always a grooved fricative, which means that the tongue has a deep trench from front to back in the production of this sound. There is also usually lip rounding, but neither of these features is uncommon to the English speaker. He need only be made aware that these features should always be present for production of German /š/ and /ž/.

The German /j/ and /h/, as well as the nasals, /m/, /n/, and /ŋ/, are similar, both in distribution and in phonetic characteristics, to their English counterparts, and thus cause little difficulty for the English speaker learning German. There is one small matter, however, in the case of German /ŋ/. As with the English /ŋ/, German /ŋ/ can occur finally and before /k/ (as in 'sing' and 'sinken'), but German /ŋ/ does not occur in clusters with /g/. Most English speakers pronounce English 'singer' with only /ŋ/ in the medial position, /siŋər/, but in 'finger, use the cluster /ŋg/, /fiŋgər/. German does not have the cluster /ŋg/. (Instructor: have participants mimic your pronunciation of German 'Singer' and 'Finger'. Then have them mimic your pronunciation of English 'singer' and 'finger'. Be sure to use the /ŋg/ cluster in 'finger'. If anyone uses the /ŋg/ cluster in the German 'Finger', have them listen to the German 'Singer' and 'Finger' and English 'singer' and 'finger' until they can hear the difference between /ŋg/ and /ŋ/ without the /g/.)

Two consonant phonemes remain for German, and two for English. These are the /l/ and the /r/ phonemes of the two languages. There are considerable phonetic differences between German /l/ and English /l/, and between German /r/ and English /r/.

The German /l/ is, in all environments, a light (that is, non-velarized) apico-dental or apico-alveolar lateral continuant. The situation in English is not quite so simple, however. Moulton describes four different types of speakers in regard to the production of English /l/: a) those who have no alveolar /l/ at all: b) those who have velarized /l/ in all positions; c) those who have a velarized /l/ in most positions but a non-velarized /l/ before /j/; and d) those who have a light (non-velarized)/l/ between vowels. The situation is by no means as simple as he describes it. At least the following environments might be considered: 1) initial /l/ before front vowels; 2) initial /l/ before back vowels; 3) medial /l/ between front vowels; 4) medial /l/ between back vowels; 5) medial /l/ between a preceding back vowel and a following front vowel; 6) medial /l/ between a preceding front vowel and a following back vowel; 7) final /l/ following a front vowel; 8) final /l/ following a back vowel; 9) pre-vocalic /l/ that is not initial but follows an initial consonant (which may be either a stop or a fricative, and either of these might be voiced or unvoiced); 10) post-vocalic /l/ that precedes another consonant (e.g. 'fooled' or 'fools') following a back vowel; 11) post-vocalic /l/ that precedes another consonant (e.g. 'field' or 'feels') following a front vowel. The choice of "light-l", "dark -l" or "velar-l" (with no apico-alveolar contact whatsoever) in each of these situations varies considerably from speaker to speaker, and it is not possible at this time to give an authoratative statement as to geographical distribution of the uses of the different /l/ sounds in these various contexts. With at least eleven identifiable contexts (and these could be multiplied by considering such things as /l/ following fricative versus nasal versus stop, and voiced versus voiceless), and three major types of /l/ sounds, the possible situations number at least thirty-three, and probably many more than that. In the teaching situation, it would perhaps be helpful to identify the various allophones of /l/ as used by one's students, so as to be ready for mispronounciations of German /l/ (the substitution of 'dark-l' for German /l/ is a very common mistake for English speakers).

English /r/ is a central retroflex semivowel. (A semivowel is a sound which has the features of a vowel, phonetically, but which functions as a consonant, phonemically, in a particular language.) The major allophones are: a voiced mid-central retroflex continualt in initial, inter-vocalic and final position; and a voiceless mid-central retroflex continuant, with varying degrees of cavity friction, in pre-vocalic position following a voiceless stop, fricative or sibilant (as in 'try', 'fry', 'shrimp', etc.).

German /r/ has two different kinds of allophones. In postvocalic position, /r/ is usually pronounced as a lower mid back unrounded vowel, slightly forward of the typical position for /ɔ/, phonetically [ʌ]. (Some speakers of German use either a uvular trill, [R], or an apical trill, [ř], if the preceding vowel is a short vowel, and if the /r/ is followed by a voiceless consonant, these same speakers may even unvoice the trill.) (For teaching purposes, however, it is better to teach only the [ʌ] allophone for this postvocalic environment, since it is perfectly acceptable standard German, and to complicate the environmental distribution of various allophones can only serve to confuse students.) In prevocalic or intervocalic position, German /r/ has three possible pronunciations, which vary from speaker to speaker (any given individual speaker usually has only one of the three, however): a uvular trill, [R], a uvular fricative, [ʁ], or an apical trill, [ř]. When an /r/ follows an initial voiceless consonant, it is generally devoiced (which is the same as what happens in English when /r/ follows an initial voiceless consonant), as in 'tragen', 'schreiben', 'fragen', etc. (In teaching this variety of /r/, it is usually best to concentrate on only one variety, whichever the teacher feels most at home with--a safe rule for any language feature which has possible variants--so that students have one thing to focus attention on, and so that they do not become confused when the teacher is speaking but not paying particular attention to the pronunciation of /r/; if the teacher teaches one variety of /r/ and uses another in normal speech, the student's ear, which tends to become more sophisticated as instruction procedes, will certainly pick up the discrepancy.)

In chapter 5, Moulton classifies teaching problems into four categories, phonemic, phonetic, allophonic and distributional. Phonemic problems arrise when the target language has a phoneme which does not exist in the native language, such as German /x/ for English speakers. If a mistake is to be made here by a student, it will most likely be in the form of a substitution of the closest sound from the native language. In the early stages of learning German, a student may hear German /x/ as English /k/, the English sound that is closest in articulatory and acoustic features. A phonetic problem is one in which native-language phonetic features are carried over into the target language, such as using English /r/ for German /r/. Allophonic problems result from carrying over native-language allophonic habits into the target language, such as using English 'voiced-t',[t̬], in German, which has no voiced allophone for /t/. A distributional problem is one in which native-language distributional habits are carried over into the target language. English distributional patterns allow for the occurrence of /g/ in final position, but in German, /g/ is limited to prevocalic and intervocalic positions. Thus a student may be tempted to say [sa:gt] instead of the correct form [sa:xt] or [sa:kt].

PRONUNCIATION DRILL TAPE I

Notes to Instructor

- Participants should have studied chapters 4 and 5 of Moulton, and be familiar with the lists of German examples presented there.

- Instructor should emphasize the fact that the tape presents citation-form pronunciations, i.e. very careful utterances, which center around individual considerations of pronunciation features, and that they represent, of course, only one variety of pronunciation which is accurate but by no means the only acceptable variety.

Time needed--Tape = 45 minutes
Device needed--Tape player
Material needed--Moulton Tape I

Pronunciation Drill Tape I

This tape contains recordings of a native speaker of German reading several of the lists given by Moulton in chapters 4 & 5. As the tape is playing, follow along in the script as presented, taking notes as you feel necessary in respect to your own pronunciation. Drills of this type can be helpful as pronunciation problems occur in an individual class.

The first portion of the tape gives examples of the consonant phonemes of German, in initial, intervocalic and final positions, whereever possible. Remember that /b/, /d/, /g/, /v/, /z/, /ž/, /j/ and /h/ do not occur in final position in German, and that /x/ and /ŋ/ do not occur initially, nor does /h/ occur intervocalically.

/p/	/'pąsə/	passe	/'raupən/	Raupen	/'rị:p/	rieb
/b/	/'bąs/	Baß	/'raubən/	rauben		
/t/	/'tąsə/	Tasse	/'bạ:tən/	baten	/'rị:t/	riet
/d/	/'dąs/	das	/'bạ:dən/	baden		
/k/	/'kąsə/	Kasse	/'hạ:kən/	Haken	/'zị:k/	Sieg
/g/	/'gąsə/	Gasse	/'hạ:gən/	Hagen		
/f/	/'fąsə/	fasse	/'hö̜:fə/	Höfe	/'raif/	reif
/v/	/'vąs/	was	/'lọ̈:və/	Löwe		
/s/	/sa'tę^{n}/	Satin	/'raisən/	reißen	/'rais/	Reis
/z/	/'ząts/	Satz	/'raizən/	reisen		
/š/	/'šąts/	Schatz	/'raušən/	rauschen	/'rauš/	Rausch
/ž/	/žẹ:'nị:/	Genie	/'rạ:žə/	Rage		
/ç/	/'çị:na/	China	/'raiçən/	reichen	/'raiç/	reich
/x/			/'rauxən/	rauchen	/'raux/	Rauch
/m/	/'mąsə/	Masse	/'hęmən/	hemmen	/'rąm/	Ramm
/n/	/'nąsə/	nasse	/'hęnən/	Hennen	/'rąn/	rann
/ŋ/			/'hęŋən/	hängen	/'rąŋ/	rang
/l/	/'ląsə/	lasse	/'kọ:lə/	Kohle	/'vįl/	will
/r/	/'rąsə/	Rasse	/'bọ:rə/	bohre	/'vįr/	wirr
/j/	/'jąkə/	Jacke	/'kọ:jə/	Koje		
/h/	/'hąsə/	hasse				

This is simply a presentation of the major sound types of German, with illustrations of the sounds in initial, medial and final position where such examples can be found in the language.

The second drill presents examples of the 'ach-Laut' and the 'ich-Laut' in various contexts. This drill should be viewed as a set of examples only. The question of whether or not the two sounds should be grouped into a single phoneme need not concern the teacher of German at this point, since both sounds are new to the English speaker and need to be mastered by students.

The 'ach-Laut', spelled with 'ch' as in 'machen' or with 'g' as in 'Tag', is a voiceless velar fricative. [Transparency] It occurs only after back vowels, /a/, /o/, /u/, and /au/. The 'ich-Laut' is a voiceless palatal slit fricative (closely resembling the initial consonant of English 'hue' or 'huge'). [Transparency] It occurs initially, after /n/, /l/ or /r/, and after front vowels, /i/, /e/, /ü/, /ö/, /oi/ and /ai/. (Statements regarding consonant distributions which use vowels to specify environments give only the short vowels, and since vowel length is phonemic in German, it must be borne in mind that short vowels and long vowels have the same effect on consonants as far as distribution is concerned. Thus /x/ occurs after /a:/ as well as after /a/: 'Dach' /dax/, 'brach' /bra:x/. It is simpler to state distributions in terms of only the short member of a long-short pair.)

With /x/		With /ç/		With /ç/	
/'dąx/	Dach	/'dęçər	Dächer	/'zị:ç/	siech
/'brạ:x/	brach	/'brɛ:çə/	bräche	/'zįç/	sich
/'lǫx/	Loch	/'lǫ̈çər/	Löcher	/'blęç/	Blech
/'hoː:x/	hoch	/'hǫ̈:çst/	höchst	/'raiç/	reich
/'brųx/	Bruch	/'brų̈çə/	Brüche	/'mąnç/	manch
/'bụ:x/	Buch	/'bụ̈:çər/	Bücher	/'zǫlç/	solch
/'baux/	Bauch	/'bǫiçə/	Bäuche	/'dųrç/	durch
				/'çị:na/	China

The third drill presents examples of the ach-Laut in final, medial and pre-consonantal position, followed by paris of words which show the contrast between /x/ and /k/. American students often substitute /k/ for /x/, since it is the English sound closest to the German /x/.

/'bąx/	Bach	/'bụ:x/	Buch	/'tauxt/	taucht
/'nạ:x/	nach	/'baux/	Bauch	/'vąxən/	wachen
/'dǫx/	doch	/'nąxt/	Nacht	/'vǫxən/	Wochen
/'họ:x/	hoch	/'kọxt/	kocht	/'zụ:xən/	suchen
/'brųx/	Bruch	/'bųxt/	Bucht	/'hauxən/	hauchen

/'ząkə/ – /'ząxə/	sacke, Sache	/'taukt/ – /'tauxt/	taugt, taucht
/'dǫk/ – /'dǫx/	Dock, doch	/'štạ:kən/ – /'štạ:xən/	staken, stachen
/'nąkt/ – /'nąxt/	nackt, Nacht	/'pǫkən/ – /'pǫxən/	Pocken, pochen
/'lǫkt/ – /'lǫxt/	lockt, locht	/'bụ:kən/ – /'bụ:xən/	buken, Buchen
/'bụ:k/ – /'bụ:x/	buk, Buch	/'paukən/ – /'hauxən/	pauken, hauchen

The next drill presents /ç/ in various environments and then contrasts it with /x/. A sample drill for contrasting possible substitutes with /ç/ is also given.

After front vowels		After consonants		Next to /s/ and /š/	
/'rị:çən/	riechen	/'mąnç/	manch	/'rị:çst/	riechst
/'mįç/	mich	/'mų̈nçən/	München	/'brįçst/	brichst
/'pęç/	Pech	/'mįlç/	Milch	/'nɛ:çst/	nächst
/'aiçə/	Eiche	/'vęlçər/	welcher	/'hö:çst/	höchst
/'ǫiç/	euch	/'dųrç/	durch	/'bįsçən/	bißchen
/'bụ̈:çər/	Bücher	/'štǫrç/	Storch	/'hǫisçən/	Häuschen
/'brų̈çə/	Brüche	/'mɛ:tçən/	Mädchen	/'tįšçən/	Tischchen
/'lǫ̈çər/	Löcher	/'lị:pçən/	Liebchen	/'flęšçən/	Fläschchen

/'dąx/–/'dęçər/	Dach, Dacher	/'šprạ:x/–/'šprɛ:çə/	sprach, spräche
/'lǫx/–/'lǫ̈çer/	Loch, Löcher	/'họ:x/–/'hö̩:çstə/	hoch, höchste
/'šprųx/–/'šprų̈çə/	Spruch, Sprüche	/'tụ:x/–/'tụ̈:çər/	Tuch, Tücher
/'braux/–/'brǫiçə/	Brauch, Bräuche		
/'vįç/ – /'vįš/	wich, Wisch	/'fįçt/ – /'fįšt/	ficht, fischt
/'mįç/ – /'mįš/	mich, misch!	/'lǫ̈çər/ – /'lǫ̈šər/	Löcher, Löscher
/'dįç/ – /'tįš/	dich, Tisch	/'kǫiçə/ – /'kǫišə/	keuche, keusche
/'zị:k/–/'zị:ç/	Sieg, siech	/'rękt/–/'ręçt/	reckt, recht
/'nįkt/–/'nįçt/	nickt, nicht	/'štraik/–/'štraiç/	Streik, Streich
/'kị:nọ:/–/'çị:na/	Kino, China		

The next drill compares English /l/ (spoken by a native speaker of English) with German /l/ (spoken by a native speaker of German). Listen carefully for the velarization of the English /l/ and the lack of velarization of the German /l/.

English	German	
/'fil/	/'fị:l/	feel; viel
/'fel/	/'fẹ:l/	fail; fehl
/'pol/	/'pọ:l/	pole; Pol
/'stul/	/'štụ:l/	stool; Stuhl
/'bįlt/	/'bįlt/	built; Bild
/'fęlt/	/'fęlt/	felt; fällt
/'lif/	/'lị:f/	leaf; lief
/'lait	/'lait/	light; Leid
/'plats/	/'pląts/	plots; Platz
/'klos/	/'klọ:s/	close; Kloß

The next drill presents a sample of the type of build-up drill that might be used to help a student learn to pronounce German /r/. Care should be exercised with such drills to make it clear that this is only an exercise, that the first item in each series is a nonsense syllable presented only to help the student become aware of the position and disposition of speech organs.

(1)		(2)		(3)	
[xau]	–	[fxau]	=	/frau/	Frau
[xai]	–	[fxai]	=	/frai/	frei

(1)		(2)		(3)	
[xaus]	—	[kxaus]	=	/kraus/	kraus
[xais]	—	[kxais]	=	/krais/	Kreis
[xaut]	—	[txaut]	=	/traut/	traut
[xais]	—	[pxais]	=	/prais/	Preis
[xạ:t]	—	[txạ:t]	=	/trạ:t/	trat
[xạ:m]	—	[kxạ:m]	=	/krạ:m/	Kram
[xǫi]	—	[txǫi]	=	/trǫi]	treu
[xọ:]	—	[fxọ:]	=	/frọ:]	froh

[kxau]	—	/grau/	grau
[txai]	—	/drai/	drei
[pxaut]	—	/braut/	Braut
[kxais]	—	/grais/	Greis

The next drill presents the phonetic difference between German intervocalic /r/ and postvocalic /r/.

Remember that postvocalic /r/ is phonetically a vowel, lower mid back unrounded. Moulton uses a diacritic under the phonetic symbol to indicate that the vowel is non-syllabic, in other words, it is a vowel glide: [ʌ̯]. Thus [i:ʌ̯], in 'Tier', [t^{h}i:ʌ̯], is a diphthong. The sequence /ər/, however, is not a diphthong but a simple vowel, thus 'bitter' is pronounced [ˈbitʌ]

[ʀ]	[ʌ̯]	[ʀ]	. [ʌ̯]
zwei Tiere	ein Tier	ich studiere	er studiert
zwei Speere	ein Speer	ich lehre	er lehrt
zwei Jahre	ein Jahr	ich spare	er spart
zwei Tore	ein Tor	ich bohre	er bohrt
zwei Uhren	eine Uhr	wir fuhren	ihr fuhrt
zwei Türen	eine Tür	ich führe	er führt
zwei Öhre	ein Öhr	ich höre	er hört

[ʀ]	[ʌ]	[ʀ]	[ʀ] or [ʌ̯]
bittere	bitter	ich irre	er irrt
bessere	besser	ich zerre	er zerrt
die älteren	die Eltern	ich harre	er harrt
ich wandere	er wandert	ich murre	er murrt
ich ändere	er ändert	ich dörre	er dörrt

This drill compares German /r/ and American English /r/, then German /r/ with American English /l/, and finally German /r/ with German /l/.

[ʀ]		[ʀ]		[ʌ̯]		[ʌ]	
reef	rief	creak	Krieg	here	hier	bitter	bitter
rest	Rest	fry	frei	air	er	father	Vater
wrote	rot	dry	drei	par	Paar	mother	Mutter
rice	Reis	price	Preis	ore	Ohr	brother	Bruder
Rhine	Rhein	brown	braun	tour	Tour	sister	Schwester

English	German	German			
		/r/	/l/	/r/	/l/
wilt	wird	wird	wild	schwirrt	schwillt
spelt	sperrt	zerrt	Zelt	schmerzen	schmelzen
halt	Hort	ward	Wald	Karte	kalte
fault	fort	Wort	wollt	Warze	Walze
malt	Mord	Kurt	Kult	Schurz	Schulz

This drill compares German /š/ with English /š/. This is a good example of the kind of drill that should be used only where a specific need arises, lest the teacher create problems where none would have occurred normally.

German /š/ has the feature of lip rounding, but the degree of rounding and protrusion of the lips is much greater in the environment of a rounded vowel: following /u/, /o/, /ü/, /ö/, /au/ or /oi/; and preceding /u/, /o/, /ü/, /ö/ or /oi/. English /š/ also shows a greater degree of lip rounding in similar environments, and most speakers have some lip rounding in the other possible environments in English, so there is usually no problem with this sound.

she	—	Schi	session	—	dreschen
sheer	—	schier	nation	—	naschen
shone	—	schon	flashy	—	Flasche
shoe	—	Schuh	ashes	—	Asche
fish	—	Fisch	washing	—	waschen
fresh	—	frisch	mushy	—	Masche
flesh	—	Fleisch	Russian	—	Groschen
bush	—	Busch	rushing	—	rauschen

This drill presents examples of the voiceless stops /p t k/ and compares the German and the English varieties. Since German /p/, /t/ and /k/ are very similar to English /p/, /t/ and /k/, even to the extent of having a fronted /k/ sound before front vowels (as in English 'key' and German 'Kiel') and a backed /k/ sound before back vowels (as in English 'coop' and German 'Kuh'). (There are languages which use these two sounds as separate phonemes.) The greatest probability of error exists with the intervocalic /t/ following a stressed vowel, which is treated in a later drill, and with final stops. German final stops, which are always voiceless, are nearly always released, sometimes even aspirated, whereas English final stops can be unreleased. The chance for pronunciation errors here is small, but should be kept in mind by the teacher.

	Initially at beginning of a stressed syllable		Initially at beginning of unstressed syllable		Medially at beginning of a stressed syllable	
/p/	'pass	'Paß	pa'rade	Pa'rade	a'part	a'part
	'place	'Platz	pla'toon	Pla'net	ap'plause	Ap'plaus
	'print	'Pracht	pro'voke	pri'vat	ap'prove	A'pril
/t/	'take	'Tag	to'day	Ta'blett	at'tain	A'tom
	'try	'Traum	tra'verse	Tra'bant	at'tract	At'trappe
/k/	'come	'Kamm	col'lide	Ka'lender	ac'cord	Ak'kord
	'clean	'klein	cli'matic	kli'matisch	ac'claim	E'klat
	'craft	'Kraft	cre'dentials	Kra'watte	A'cropolis	A'kropolis
	'quite	'Qual	qua'dratic	qua'dratisch	A'quarium	A'quarium

	Medially before unstressed vowel		Finally	
/p/	ripper	Rippe	up	ab
	helper	Tulpe	help	halb
	sharper	Schärpe	harp	Korb
	bumper	Lampe	lump	Lump
/t/	pity	bitte	sat	satt
	salty	sollte	colt	kalt
	party	warte	heart	hart
	county	konnte	want	Hand
/k/	sticky	Stücke	sack	Sack
	bulky	welke	elk	welk
	turkey	wirke	hark	Werk
	inky	sinke	sank	sank

English	German	English	German
reap	rieb	leaped	liebt
lope	Lob	nicked	nickt
mitt	mit	lift	Lift
loot	lud	best	best
seek	Sieg	wished	wischt
lock	Lack	felt	fällt

The voiced variety of medial /t/ in American English may present problems to the student learning German if he carries over his English habits. The following drills present some ways of helping to overcome the problem.

kitty — kiddy   filter — filled 'er
betting — bedding   alter — alder
catty — caddy   hearty — hardy
coated — coded   sorted — sordid
writing — riding   hurting — herding

scenting — sending   winter — winner
mounting — mounding   panting — panning
canted — candid   punting — punning
vented — vended   runty — runny
painter — pained 'er   auntie — Annie

[t̬]	[tʰ]	[t̬] or zero	[t']
pity	bitte	"wanta"	wohnte
bitter	bitter	winter	Winter
salty	sollte	painter	lehnte
parted	wartet	county	konnte
partitive	wartete		

This drill present consonant clusters which are unusual to the English speaker.

German	/r/	/l/	/n/	/m/	/v/
/p/	Preis	Plan	(Pneu)	. . . .	. . . .
/b/	breit	blau	. . . .	. . . .	. . . .
/t/	treu	. . . .	. . . .	(Tmesis)	(Twist)
/d/	drei	. . . .	. . . .	. . . .	(dwars)
/k/	Kreis	klein	Knie	. . . .	Qual
/g/	grau	Glas	Gnade	(Gmünd)	. . . .
/f/	frei	Flug	. . . .	. . . .	. . . .
/s/	. . . .	(Slawen)	(Snob)	(Smoking)	(Sweater)
/š/	Schrei	schlau	Schnee	schmal	schwer

German		/r/	/l/	/v/
/sp/	(Spektrum)	(Sprinter)	(Spleen)	. . . .
/st/	(Stop)	(Strategie)	. . . .	. . . .
/sk/	(Skandal)	(Skrupel)	(Sklave)	(Squaw)
/šp/	Spiel	Sprung	Splitter	. . . .
/št/	Stuhl	Strahl	. . . .	. . . .

German		/r/	/l/	/v/
/pf/	Pfund	Pfropfen	Pflaume	. . . .
/ps/	(Psalm)	. . . .	. . . .	. . . .
/ts/	Zahl	. . . .	. . . .	Zweck
/tš/	(Tscheche)	. . . .	. . . .	. . . .
/ks/	(Xanten)	. . . .	. . . .	. . . .

The final drills exemplify the voiced-voiceless alternation in German, which must be practiced until they become automatic for the non-native speaker.

	/b/-/p/	/d/-/t/	/g/-/k/	/v/-/f/	/z/-/s/
Voiced	graben	finden	fragen	Sklave, Motive	lesen
Voiceless finally	Grab	Fund	frag!	Motiv	lies!
Voiceless in compound	Grabmal	Fundort	fragwürdig	motivreich	Lesart
Voiceless before suffix	Begräbnis	Findling	fraglich		lesbar
Voiceless in cluster with /t/	er gräbt	. . . .	er fragt	er versklavt	er liest
Voiceless in cluster with /s/	des Grabs	des Funds	du fragst	du versklavst	. . .

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Voiced	Voiceless	South	North	Standard
Tage	Tag	/'tạːk/	/'tąx/	/'taːk/
Wege	Weg	/'vẹːk/	/'vẹːç/	/'vẹːk/
Berge	Berg	/'bęrk/	/'bęrç/	/'bęrk/
folgen	folgt	/'fǫlkt/	/'fǫlçt/	/'fǫlkt/
Könige	könig	/'kọ̈ːnịk/	/'kọ̈ːnịç/	/'kọ̈ːnịç/
fertige	fertig	/'fęrtịk/	/'fęrtịç/	/'fęrtịç/
reinigen	reinigt	/'rainịkt/	/'rainịçt/	/'rainịçt/
nötiger	nötigste	/'nọ̈ːtịkstə/	/'nọ̈ːtịçstə/	/'nọ̈ːtịçstə/

Voiceless:	das Grab	das Rad	der Tag	der Preis	der König
Voiceless:	des Grabs	des Rads	des Tags	. . . .	des Königs
Voiced:	die Gräber	die Räder	die Tage	die Preise	die Könige

Voiced:	leben	wenden	zeigen	reisen	reinigen
Voiceless:	lebte	wandte	zeigte	reiste	reinigte
Voiceless:	gelebt	gewandt	gezeigt	gereist	gereinigt

Voiced:	geben	laden	tragen	lesen
Voiceless:	gab	lud	trug	las
Voiced:	gegeben	geladen	getragen	gelesen
Voiceless:	er gibt	er lädt	er trägt	er liest

Assignment Sheet

Assignment: Reread Chapters 1-5 in the light of this session's discussion.
Read Chapters 6-9 for next time.

Select 2 participants to prepare each of the following mini-lessons. Each lesson should be 3-4 minutes long, to be presented next time to the group in a peer-teaching situation.

a) explanation and drill for /ç/, not contrasting it with anything, but presenting it in all possible environment.

b) explanation and drill to overcome problem of confusion of /ç/ and /š/. Assume that students have confused 'mich' and 'misch!'

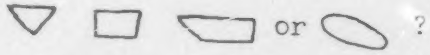
c) explanation and drill for German /l/. Assume that students have let English dark /l/ creep into their German.

d) explanation and drill for German /r/, not contrasting it with anything, but presenting it in various contexts. Use the pronounciation which is most comfortable for you.

e) explanation and drill for medial /t/. Assume that students have carried over English voiced /t/ into German.

Key explanations and drills to your textbook, and to student level. (Instructor will comment after each demonstration.)

SESSION III

TOPIC	TIME	MATERIALS	PAGE
Questions and discussion of Pronunciation Tape I, Reading Assignment, presentation and critique of mini-lessons, other questions	40 min.		86
I. Vowels	40 min.		88
A. General considerations			
1. Classification			
a. High-low			
b. Front-back			
c. Rounded-unrounded			
2. Length			
3. Tense-lax			
4. Nasalization			
5. Syllabicity			
6. Diphthongization			
7. Cardinal vowels			
8. 			
B. English vowels	20 min.		
1. Characterization and classification			
2. Catalog of English vowel phonemes			
C. German vowels	20 min.		
1. Classification and characterization			
2. Catalog of German vowel phonemes			
D. Comparison and contrastive analysis of English and German vowel phonemes	20 min.		
1. Obvious differences in the two systems			
2. Less obvious but important differences			
3. Potential trouble spots for the learner			
BREAK	20 min.		

SESSION III (continued)

TOPIC		TIME	MATERIALS	PAGE
II.	Pronunciation Drill Tape II	55 min.	Moulton	107
	A. Introduction to tape		Chapters 6-9	
	B. German vowel phonemes		p. 61	
	C. Long /a/ vs. short /a/		p. 62	
	D. Various long-short pairs		p. 63	
	E. Syllabic vs. non-syllabic segments		pp. 65-67	
	F. Unstressed vowels contrasted with syllabic consonants		pp. 67-68	
	G. Examples of /ɛ/		p. 68	
	H. Checked vowels vs. free vowels		p. 69	
	I. English long vowels compared to German long vowels German long vowels compared to German short vowels		pp. 97-98	
	J. German /a/		p. 99	
	K. German /o/ compared with various English vowels		p. 100	
	L. German /a/ vs. German /o/		p. 100	
	M. Rounded vs. unrounded vowels		pp. 101-102	
	N. Stressed vowels before /r/		pp. 102-104	
	O. German diphthongs		p. 104	

SESSION III (continued)

TOPIC	TIME	MATERIALS	PAGE
III. Pronunciation Drill Tape III	25 min.	Moulton	115d
A. Introduction to tape			
B. /ə/ vs. /ar/		p. 105	
C. /ən/ vs. /in/		p. 105	
D. Syllabic nasals		p. 106	
E. Recognition drill: final nasal vs. nasal plus homorganic syllabic nasal		p. 106	
F. Unstressed vowels		pp. 107-111	
G. English vs. German unstressed vowels		p. 111	
IV. Summary of pronunciation tapes and questions	20 min.		115h
Assignment - Read Moulton Chapters 10-12			115h
Evaluation			

Questions and Discussion of Previous Session

First see if there are any questions over material presented in previous session, or any questions over units 1-5 of Moulton, which it was suggested the participants reread for this time.

Next have participants present lessons they prepared for this time, from assignment sheet of previous session. Certain things should be watched for under each section:

a) be sure that environment is correct; /ç/ occurs in these environments: 1) initial, as is 'Chemie'; 2) following front vowels: /i/, /i:/, /e/, /e:/, /ü/, /ü:/, /ö/, /ö:/; 3) following /n/, /l/ or /r/, as in 'manch' 'Milch', 'durch'; in addition, the diminutive suffix '-chen' always has /ç/.

b) watch to see that /š/ is produced with noticeable lip rounding, /ç/ with lips spread. Mini lesson should include discrimination drill.

c) German /l/ is always light, English /l/ has dark allophones and sometimes light allophones, depending on dialectal area of speakers and individual differences; English /l/ sometimes even has a velar allophone, [ʟ].

d) German /r/ has these allophones, [R] or [ř] in prevocalic position (lesson should present one or the other, whichever is most comfortable for the instructor); [ʌ] in postvocalic position (following vowel either in final position or before another consonant).

e) English intervocalic /t/, if the first vowel is stressed, is usually voiced, as in 'water', 'butter', but not in 'attack', since stressed vowel follows the /t/. German /t/ is never voiced.

Since this session focuses on Chapters 6-9 of Moulton, handle only general questions from participants over the remainder of the reading assignment.

I. Vowels

When the vocal tract is used as resonance chambers, the resulting sound is called a vowel, provided that air passes out through the oral cavity and that no point of the center line of the tongue (front to back) is touching the roof of the mouth. The sizes and shapes of the resonating chambers can be changed considerably, resulting in the wide range of vowel sounds which the human vocal apparatus can produce. Vowels can be classified according to the following sets of terms:

a) high - mid - low; the highest point of the tongue, viewing the head from the side, is the first dimension to be considered [Transparency] for classifying and identifying vowels. Since there are no discrete steps involved in moving from high to low in the mouth, the term mid is used to indicate something between high and low, for convenience in identifying vowels.

b) front - central - back; the front to back location of the highest part of the tongue specifies this dimension of vowels. By plotting the high-to-low dimension along the y-axis (vertical) and the front-to-back dimension along the x-axis (horizontal), a graphic representation of the vowels can be derived. This is where the familiar vowel triangle or vowel quadrilateral comes from.

c) rounded - unrounded; the shape that the lips give to the outer end of the vocal tract adds a further dimension to vowels. Changes in the shape result in qualitative differences in vowels.

For some languages, this quality of vowels, that is, rounded or unrounded, is a redundant feature. English, for example, has front vowels unrounded and back vowels rounded. Other languages use this quality as a distinctive feature. German, for example, has front vowels that are unrounded and also front vowels that are rounded (the first vowel in 'fühlen' is a front rounded vowel). It is also possible to have an opposition of the type: back rounded vs. back unrounded, but since this distinction does not occur in German or English, it need not concern us here.

There are several other features which vowels can demonstrate that are needed in a comparison of English and German vowels. Length, for example, can be used to differentiate vowels in languages. In some languages, length is a more or less redundant feature, as it is in English, for example. English has longer vowels and shorter vowels, but there are other features which are more important for differentiating vowels. The longer English vowels are always diphthongized and are always tenser than their shorter counterparts. In addition, following consonants can have a very great effect on vowel length. A so-called short vowel which occurs in an utterance-final syllable followed by a voiced consonant can be longer than a so-called long vowel which occurs in an unstressed syllable followed by a voiceless stop. (Example: In a situation where you wanted to be sure that the listener understood what you wanted to say, you might utter the sentence "No, Sneed talked to Ted" with the greatest stress on 'Ted'. Perhaps the listener misunderstood and thought you had said "Sneed talked to Fred," but you knew that it was Ted that Sneed had talked to, not Fred, so you repeat your statement and place a major stress on 'Ted'. In this instance, the vowel in 'Ted' might very well be longer, in terms of the real time that it takes for the vowel to be uttered, than the vowel of 'Sneed', which is a so-called long vowel.)

The opposition tense vs. lax is also important for a comparison of English and German vowels. This feature has to do with the degree of muscular tension or muscular energy involved in the production of different vowels. In general, German vowels are tenser than corresponding English vowels. In addition, each pair of German vowels, such as long /i:/ and short /i/, differs in tenseness. The longer member of each pair is tenser than the shorter member, thus /i:/ is tenser than /i/, /e:/ is tenser than /e/, etc.

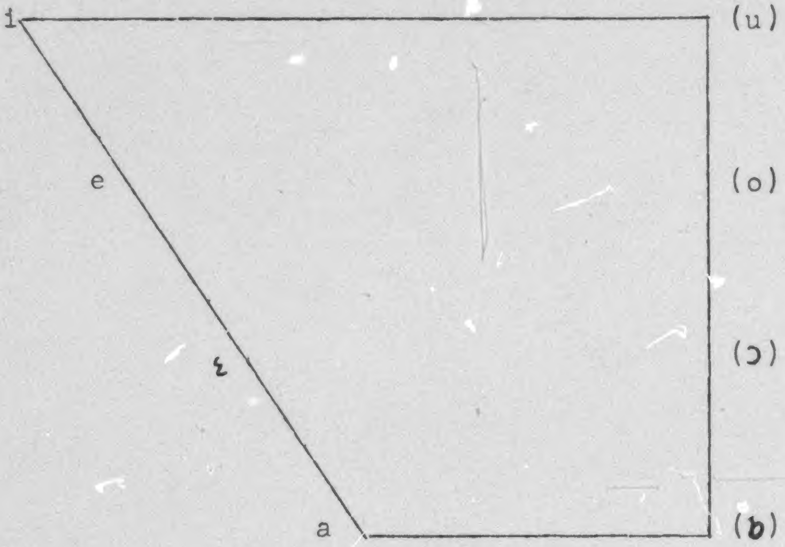
Moulton lists a further opposition which might be considered for vowels, constricted vs. non-constricted. It is possible to interpret the difference between English central vowels in terms of constriction, in which the sides of the tongue are constricted. There are, however, more ways than one to produce the 'r-coloring' of English. In a sample of six speakers, four used the so-called retroflex 'r', in which the tip of the tongue is raised toward the alveolar ridge but does not touch it and the sides of the tongue are laterally constricted; one used a type of 'r' in which the tip of the tongue was on the floor of the mouth but the tongue was laterally constricted; the last speaker produced the r-sound with the tip of the tongue on the floor of the mouth, but the sides of the tongue were not laterally constricted, rather they were firmly pressed against the lower side teeth, and the tongue was depressed centrally from tip to mid dorsum. The postvocalic r-sounds thus produced were mutually intelligible to all speakers, even though produced by such a wide variety of articulatory dispositions. If the term 'constricted' is interpreted to include among its possible realizations this latter type of r-sound, perhaps the allophonic feature 'troughed', then it will still serve the intended purpose, that is one of characterizing English r-sounds. The important thing to remember is that German has no sound which approximates the English r-sound, and this becomes a problem for students when they see the spelling in German '-er', as in 'Vater', 'bitter', etc.

The opposition syllabic vs. non-syllabic is necessary for phonemic considerations. A vowel is said to be syllabic when it carries the major stress in a given syllable. Thus the verb form 'fuhr', pronounced [fu:ʌ̯], contains two vowels but only one syllable. The first vowel, phonetically speaking, carries the major syllable stress and is therefore syllabic; the second vowel (phonetically a vowel but written phonemically as a consonant, /r/, since it patterns as a consonant, that is, it can occur before or after any vowel, and it alternates with consonantal /r/ when it is followed by a vowel, as in 'fuhren', ['fu:Rən]) is non-syllabic, does not carry major syllable stress, and is written phonemically as a consonant.

Depending on whether the velic is open or closed, that is, whether or not any of the air stream is free to go through the nasal cavity, a vowel may be said to be nasalized or non-nasalized. (Note that the term 'nasal' is generally reserved for nasal consonants, consonants in which the air stream is prevented from going out through the oral cavity by a closure in the oral cavity, forcing the entire steam of air to leave via the nasal passage.) Certain languages, for example French, make use of the distinction nasalized vs. non-nasalized in their phonemic structure. In these languages, a pair of words can differ by the presence or absence of nasalization. Neither German nor English make use of this distinction, although there is a degree of nasalization present in vowels which are contiguous to nasal consonants. (Note however that some speakers of English do occasionally substitute the feature of nasalization for a following nasal consonant, as in 'sentence' [ˈsɛ̃:ʔn̩s]. This should be regarded as a substitution, though, because these same speakers, in other circumstances, such as careful speech in which the speaker wants to be certain that there will be no misunderstanding, will use the appropriate nasal consonant: [ˈsɛ̃ntəns].)

The last feature of vowels which will be considered here is that of diphthongization. A vowel which changes in quality from beginning to end is said to be diphthongized. Moulton observes that instrumental observation of vowels indicates that all vowels are diphthongized to a greater or lesser extent. The kind of diphthongization which we are interested in here, however, is that which is observable to the ear. English vowels, notably the vowels of 'beat', 'bait', 'boot' and 'boat', are very noticeably diphthongized, whereas the similar German vowels of 'bieten', 'beten', 'Hut', and 'Not' are not diphthongized to an extent which can be detected without resorting to instrumental analysis. German does have three diphthongs, /ai/, /au/ and /ɔi/ which correspond to three similar diphthongs of English, the vowel sounds of 'bite', 'bout' and 'boy', but these three are not potentially troublesome for the English speaker because of the similarities between the phonetic facts of the two languages. Note however that many speakers have an [æu] diphthong in 'house', 'cow', etc., and some have an extremely long off-glide in 'boy' [bɔiː], 'toy', etc.

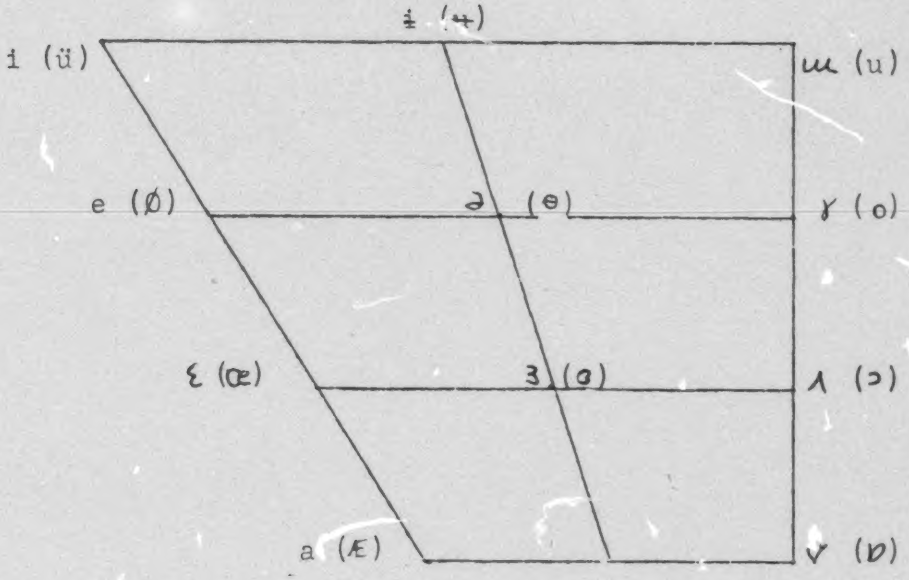
which to interpret any vowel sound, the British phonetician Daniel Jones recorded certain vowel sounds which he called 'cardinal vowels'. (Historical note: The idea of establishing reference points for identifying vowels was apparently first put forward by A. J. Ellis in 1844 in The Alphabet of Nature, and the term 'cardinal vowel' was first used in print by A. M. Bell in Visible Speech: The Science of Universal Alphabetics in 1867. Jones was the first to put the ideas into practice, however, in his English Pronouncing Dictionary, 1917. The same year, the HMV Grammophone Company made available commercially phonograph records of Jones producing his cardinal vowels.) Jones' cardinal vowels consist of four front unrounded vowels and four back rounded vowels. The front vowels are a) the highest front vowel which can be produced; b) the lowest front vowel; c) a vowel which is one-third of the way from the highest front vowel toward the lowest front vowel; and d) a vowel which is two-thirds of the way from the highest front vowel toward the lowest front vowel. The back vowels are rounded, but their other features are similar: a) the highest back vowel; b) the lowest back vowel; c) one-third of the way from highest to lowest; and d) two-thirds of the way from highest to lowest. This is represented graphically below. The figure is asymmetrical because the tongue moves further in getting from [i] to [a] than it does in getting from [u] to [ɒ].



Primary Cardinal vowels

(parentheses indicate rounded vowels)

A second set of vowels, the secondary cardinal vowels, simply reverses the rounded-unrounded feature: the front vowels are rounded, the back vowels are unrounded. The locations are the same as for the primary cardinal vowels. Six additional vowels complete the cardinal vowel scheme. Each is a pair, one rounded, the other unrounded, and they are all central vowels (centered from front to back). There is a highest pair, a pair one-third of the way down, and a pair two-thirds of the way down. The following chart contains the twenty-two cardinal vowels. Symbols which appear in parentheses are rounded, those not enclosed by parentheses are unrounded.


ɨ (ʉ)
i (ü)
ɯ (u)
e (ø)
ə (ɵ)
ɤ (o)
ɛ (œ)
ɜ (ɞ)
ʌ (ɔ)
a (Æ)
ɑ (ɒ)

It should be borne in mind that the cardinal vowels selected by Jones for his system are arbitrarily chosen for purposes of description and identification, and that, except for the mid-central vowels ([ə], [ɵ], [ɜ], and [ɞ]), they are peripheral, that is, the highest point of the tongue lies on the outside limit of the vowel area for each one. The cardinal vowel concept is presented here so as to give some more or less fixed points of reference with which to compare the vowels of German and English. The English vowel system has no vowels which approach the extreme positions of the peripheral cardinal vowels. German, on the other hand, does have vowels which closely approximate the cardinal vowels, especially as compared with English. The German high front rounded vowel as well as the unrounded, and the high back rounded vowel are all relatively near the cardinal positions.

For classroom teaching, the cardinal vowel system need not be introduced at all, but an awareness of such a system on the part of the teacher should make the teacher more aware of the differences between English and German vowels, and better equip him to offer corrections to students when errors are made.

▽, □ , ⏢, or ⬭ ?

These four figures have been used to schematically represent the vowel systems of languages. Which is most appropriate for our purposes, that is, comparing the vowel systems of German and English so as to be able to foresee potential problems that students might have in trying to learn German? The triangle has perhaps the longest tradition and still occurs occasionally in textbooks. It distorts the phonetic facts of both the English and the German vowel systems, so it is probably less useful than the other figures. The oval has the advantage that it preserves the phonetic facts of the true location of the high point of the tongue for the cardinal vowels, but since English vowels are not as extreme as the cardinal vowels, and since only some of the German vowels approach the cardinal vowels, the oval is not particularly useful for the teaching of German to speakers of English. (The oval is the shape that results from plotting the location of the high point of the tongue in the production of peripheral vowels, based on x-ray photographs.) The choice, then, seems to be between the square and the other quadrilateral. Moulton chooses a trapezoid-like quadrilateral in which the upper and lower boundaries are further apart in front than they are in back. The reason for this is that the jaw is hinged at the back, and as the mouth is opened, the front of the jaw opens wider than the back for any given distance of jaw movement. In our discussion of the vowel systems of English and German, the two will be compared, but it seems that the square is perhaps the best figure for mapping the phonemic situations for reasons of comparison.

[The purpose of the foregoing discussion of geometric shapes may not be immediately apparent, since the things being discussed are not the kinds of things which a teacher discusses with students in the classroom. But it is the feeling of many (the present writer included) that the more familiar a teacher is with his subject matter, not only with the surface facts but with the underlying structures and systems that can be observed in that subject matter, the more effective the teacher can be. Further, the teacher, in his continuing reading in his field, encounters discussions of the type presented above, and needs to be able to follow such discussions in order to be able to glean all that is potentially useful to him as a teacher.]

In addition to Moulton's discussion of the phonemics of the English vowel system, it is worthwhile to consider another type of classification, the system presented by G. L. Trager and H. L. Smith (in An Outline of English Structure, 1957). This analysis treats the vowel system as consisting of nine simple vowels and three semivowels which can occur as off-glides. The nine simple vowels can occur alone or can be followed by an offglide. The following chart presents the nine simple vowels and the off-glides.

simple vowels

	front	central	back
high	i	ɨ	u
mid	e	ə	o
low	æ	a	ɔ

off-glides

y	h	w

This system, which is compatible with the consonant system presented for English in the past session, interprets /y/, /h/ and /w/ to be vocalic off-glides when they occur in postvocalic environments. /y/ is a glide toward (but not necessarily reaching) a high front vowel; /h/ is a glide toward a mid central vowel or it is phonetic length; /w/ is a glide toward a high back vowel. Thus the phonemic transcription /reyt/ for English 'rate' indicates that the vocalic segment of the word starts as a mid front vowel and glides toward high front; /rowt/ for English 'rote' has a vocalic segment that glides from mid back toward high back; /trawt/ for English 'trout' has a vocalic segment that glides from low central toward high back; etc. One of the advantages of this system is that it allows for the inclusion of the various dialects of English. Many speakers of English who learned their English in Texas, for example, pronounce the word 'on' with a diphthong which moves from low back toward high back [ɒ^{u}n]. This vowel nucleus can be accommodated within the aforementioned system as /ɔwn/ and would still be shown to contrast with 'own', [o^{u}n]: /own/.

Moulton lists fifteen contrasting vowels and diphthongs for English, plus a sixteenth "which occurs only in unstressed syllables."

						Before /r/	
1.	/ı/	beat	leak	dean	nearer	here	fierce
2.	/ı̜/	bit	lick	din	mirror		
3.	/e/	bait	lake	Dane	Mary	hair	scarce
4.	/e̜/	bet	neck	den	merry		
5.	/æ/	bat	lack	Dan	marry		
6.	/a/	pot	lock	Don	starry	far	farce
7.	/ɔ/	bought	hawk	dawn	warring	for	horse
8.	/o/	boat	soak	bone	boring	four	hoarse
9.	/u̜/	put	look		fury	tour	moor
10.	/u/	boot	Luke	boon	poorer		
11.	/ʌ/	but	luck	bun	hurry		
12.	/ɜ/	Bert	lurk	burn	furry		
13.	/aı/	bite	like	dine	Shirer		
14.	/ɔı/	Hoyt		coin	Moira	coir	coirs
15.	/au/	bout		down	Lowry	hour	sours
16.	/ə/	about	gallop	comma			

The Trager-Smith system accounts for all of these possibilities (plus others as necessary) as follows. The numbers refer to Moulton's numbers from the preceding list.

	Moulton's system	Smith-Trager system
1.	/i/	/iy/
2.	/ɪ/	/i/
3.	/e/	/ey/
4.	/ɛ/	/e/
5.	/æ/	/æ/
6.	/a/	/a/
7.	/ɔ/	/ɔh/
8.	/o/	/ow/
9.	/ʊ/	/u/
10.	/u/	/uw/
11.	/ʌ/	/ə/
12.	/ɜ/	/ər/
13.	/ai/	/ay/
14.	/ɔi/	/ɔy)
15.	/au/	/aw/
16.	/ə/	/ə/ (same as No. 11, since the two never contrast, but occur in mutually exclusive environments)

The simplicity of the Trager-Smith system becomes more apparent as further comparison is made. Moulton has three symbols for the mid central vowels of English, /ɜ/, /ʌ/, and /ə/. Since according to Moulton's analysis /ə/ occurs only in unstressed syllables, it can not contrast with /ɜ/ or /ʌ/, which occur only in stressed syllables. Further, the phoneme /ɜ/ of Moulton's system is to be interpreted as either [ɜ] or [ɝ], depending upon geographical location of the speech being transcribed. This is the same kind of a situation which Moulton cites as a fault of the Trager-Smith system, that is, differing phonetic realities for different geographical distributions of phonemes.

In summary, it is probably well to consider both systems for their advantages. Actual classroom use of transcriptional systems is a debatable issue, however. Secondary school students are more or less completely familiar with English spelling, and German spelling is regular enough to almost preclude the necessity of transcription for the classroom. What needs to result from this discussion is an awareness of the differences of the German vowel system and the English vowel system, mainly: a) German has three diphthongs, always written in the orthography as diphthongs; English has many more diphthongs, not necessarily written as such in the orthography: b) German has long vowels and short vowels which, though they may exhibit slight phonetic differences, must be distinguished by length, since this is a distinctive feature in the language; English does not have long-short distinctions as such, thus vowel length in English can vary greatly according to environment (depending on stress: vowels are noticeably longer if they carry major sentence stress than they are in unstressed positions; depending on phonetic environment: a vowel followed by a voiced consonant is longer than the same vowel followed by a voiceless consonant); vowels in unstressed position in German maintain their vowel quality, whereas English vowels in unstressed position can be reduced to schwa, /ə/.

The German vowel system differs somewhat from the English vowel system. While it is possible to analyze this system as Moulton does, it is perhaps misleading to show differences both in place of articulation and in length, since one of these features is redundant. The following chart portrays the vowel system in a way that lends itself to a ready comparison with the English vowel system.

	front		central	back
	unrounded	rounded		
high	i	ü		u
mid	e	ö	ə	o
low			a	

There is a phoneme of length, /:/, which can occur with any vowel except the mid central vowel /ə/. Three diphthongs occur in standard German, /ai/, /au/ and /ɔi/. When a vowel occurs without length, that is, as a short vowel, it is centralized. Long vowels are decentralized. Under major stress, long vowels are nearly three times as long as short vowels, but under weak stress the difference is not so great--long vowels here are only about one and one-half times as long as short vowels. Finally, long vowels are tense, short vowels are lax.

Comparison and contrastive analysis of German and English vowel systems:

Moulton, Chapter 9, should have been read, and any questions that participants have should be handled at this time. The tape for this session consists of many drills contrasting potential trouble spots.

GERMAN VOWEL SOUNDS

Notes to Instructor:

- Tapes II and III contain numerous contrastive vowel drills, emphasising the main conflict points between German and English.
- Participants should study chapters 7, 8 & 9, and be thoroughly familiar with the lists of examples in chapters 7 & 9.
- Chapter 6 of Moulton should be read as an introduction to the study of vowels.
- Instructor should introduce each drill and point out the purpose of the particular drill

Device needed--Tape recorder

Material needed--Moulton Tapes II & III

Pronunciation Drill Tape II

The first section of the tape consists of a series of examples of the German vowel phonemes, in these environments: a) preceding voiceless stop; b) preceding /l/; c) preceding nasal consonant; and d) preceding intervocalic /r/ (except that the diphthongs /ai/ and /au/ do not occur before intervocalic /r/).

1.	/ị/	bieten	Stiele	ihn	ihre
2.	/į/	bitten	Stille	in	irre
3.	/ẹ/	beten	stehle	wen	zehre
4.	/ę/	Betten	Stelle	wenn	zerre
5.	/ụ/	Rute	Buhle	Ruhm	Fuhre
6.	/ų/	Kutte	Bulle	Rum	murre
7.	/ọ/	rote	Sohle	Sohn	bohre
8.	/ǫ/	Rotte	solle	Bonn	Lorre
9.	/ụ̈/	Güte	fühle	kühn	führe
10.	/ų̈/	Mütter	fülle	dünn	Dürre
11.	/ọ̈/	Goethe	Höhle	tönt	höre
12.	/ǫ̈/	Götter	Hölle	könnt	dörre
13.	/ạ/	rate	fahle	Bahn	Haare
14.	/ą/	Ratte	falle	Bann	harre
15.	/ai/	leite	Feile	Bein	. . . .
16.	/ǫi/	Leute	heule	neun	eure
17.	/au/	Laute	faule	Zaun	. . . .
18.	/ɛ/	bäte	stähle	wähne	währe
19.	/ə/	gesagt	bitte	wartete	bessere

The second section of the tape is a list of pairs of words which for many speakers are differentiated only by the length of the vowel, /a/ vs. /a:/; other speakers have a qualitative difference between /a/ and /a:/, in that /a/ is centralized and probably lax, /a:/ is decentralized and tense. The examples on the tape differ qualitatively as well as quantitatively.

Bann	Bahn
kann	Kahn
wann	Wahn

Kamm	kam
Lamm	lahm
satt	Saat
Stadt	Staat
schlaff	Schlaf
As	aB
Fall	fahl
Stall	Stahl
all	Aal
Wall	Wahl
Schall	Schal
starr	Star

The next section of the tape contrasts long tense vowels with short lax vowels. These examples should be repeated by participants!

Tense and long		Lax and short	
['lị:t]	Lied	['lįt]	litt
['bẹ:t]	Beet	['bęt]	Bett
['štạ:t]	Staat	['štąt]	Stadt
['šọ:s]	Schoß	['šǫs]	schoß
['mụ:s]	Mus	['mųs]	muß
['hụ̈:tə]	Hüte	['hų̈tə]	Hütte
['họ̈:lə]	Höhle	['hǫ̈lə]	Hölle

Long vowels are much longer when stressed than they are when unstressed. Listen carefully to the first vowel in each of these examples.

Long when stressed	Short when unstressed
/ị/ = [ị:] in ['krị:tįš] kritisch	/ị/ = [ị] in [krị'tị:k] Kritik
/ẹ/ = [ẹ:] in ['lẹ:bən] leben	/ẹ/ = [ẹ] in [lẹ'bęndįç] lebendig
/ọ/ = [ọ:] in ['dọ:zįs] Dosis	/ọ/ = [ọ] in [dọ'zį:rən] dosieren
/ụ/ = [ụ:] in ['mụ:zə] Muse	/ụ/ = [ụ] in [mụ'zẹ:ųm] Museum

The next set of contrasts shows the difference between tense long vowels and lax short vowels in unstressed position. Listen carefully to these items:

Tense (phonemically long, but much shorter than in stressed position)	Lax (phonemically short, shorter than tense vowel)
/ị/ in [dị'nẹ:] Diner	/į/ in [dį'fụ:s] diffus
/ẹ/ in [dẹ'tai] Detail	/ę/ in [dę'sẹ:r] Dessert
(/a/ in [ba'la^{n}sə] Balance)	(/a/ in [ba'lạ:də] Ballade)
/ọ/ in [kọ'lụmbụs] Kolumbus	/ǫ/ in [kǫ'lẹ:gə] Kollege
/ụ/ in [kụ'rị:r] Kurier	/ų/ in [skų'rị:l] skurril
/ụ̈/ in [zụ̈na'gọ:gə] Synagoge	/ų̈/ in [sų̈na'lọ̈:fẹ] Synalöphe
/ọ̈/ in [ọ̈kọ'nọ:m] Ökonom	/ǫ̈/ in [ǫ̈strọ'gẹ:n] Östrogen

This section of the tape presents differences between non-syllabic vowels and prevocalic glides, and should be listened to for information only. The fine shade of phonetic difference between non-syllabic [i̯] and [j], for example, is not a necessary or even regular feature of the language, and smacks faintly of hypercorrectionism. (Note that a different diacritic is used to mark non-syllabic vowels here. In the discussion of /r/, the symbol used was [̑]. Here it is [˘].)

[ĭ]		[j]	
['dạ:lĭə]	Dahlie	['tąljə]	Taille
[la'pạ:lĭə]	Lappalie	[ka'nąljə]	Kanaille
['špạ:nĭər]	Spanier	[šam'pąnjər]	Champagner
[fa'mị:lĭə]	Familie	[va'nįljə]	Vanille

[ĭ]		[j]	
[bį'lĭọ:n]	Billion	[bįl'jęt	Billet
[mį'lĭąrdə]	Milliarde	[brįl'jąnt]	brillant

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[ĭ]		[ị]	
['rạ:dĭu̯s]	Radius	['rạ:dịu̯m]	Radium
[a'mọ:nĭu̯m]	Ammonium	['gẹ:nịu̯s]	Genius
[alụ'mị:nĭu̯m]	Aluminium	[ak'tị:nịu̯m]	Aktinium
[prọlẹ'tạ:rĭər]	Proletarier	[dị:nọ'zaurịər]	Dinosaurier
[pẹ'rĭọ:də]	Periode	[pẹrị'ọ̈:kə]	Periöke
[a'lĭạⁿs]	Alliance	[alị'ạnts]	Allianz
['kĭạntị]	Chianti	[fị'ạkər]	Fiaker
['pĭạ:nọ]	Piano	[pị'ạstər]	Piaster

[ŭ]		[ụ]	
[zẹ'ksŭẹl]	sexuell	[,bị:zẹksụ'ẹl]	bisexuell
[zị'lŭẹtə]	Silhouette	[aktụ'ẹl]	aktuell

[bụ'dõạ:r]	Boudoir	[kõa'fọ̈:r]	Coiffeur
[mẹ'mõạ:rən]	Memoiren	[tõa'lẹtə]	Toilette
['põẹⁿtə]	Pointe	[lõa'jạ:l]	Loyal

This portion of the tape first gives examples of unstressed /ə/, then contrasts unstressed /ə/ + nasal vs. syllabic nasal.

[gə'nau] genau ['rẹ:dətə] redete ['vạrtətə] wartete

tippen /'tịpən/ = ['tịpən] or /'tịpəm/ = ['tịpᴺm̩]

bitten /'bịtən/ = ['bịtən] or ['bịtᴺn̩]

backen /'bạkən/ = ['bạkən] or /'bạkəŋ/ = ['bạkᴺŋ̩]

Mittel /'mịtəl/ = ['mịtəl] or ['mịtᴸl̩]

bitter /'bịtər/ = ['bịtəʀ] or ['bịtʌ]

['bịtəř] or ['bịtʌ]

This section of the tape gives examples of /ɛ/. This sound is of somewhat uncertain nature, and need be considered only if the teacher uses it consistently in his speech. Listen to the examples, but note that /e/ can be substituted everywhere except in the name of the letter, 'ä'.

/ɛ/ = [ę:]		/ɛ/ = /ę/	
[mɛ:'nạ:də]	Mänade	[dɛ'mọ:nən]	Dämonen
[drɛ:'nị:rən]	dränieren	[plɛ'dị:rən]	plädieren
[pɛ:'ọ:nĭə]	Päonie	[prɛ'ąmbəl]	Präambel
[fɛ:nọ'tụ̈:p]	Phänotyp	[fɛnọ'mẹ:n]	Phänomen
[prɛ:'zęnts]	Präsenz	[prɛ'zęnt]	Präsent

A further characteristic of the German vowel system involves the difference between free and checked positions. A vowel which occurs before a consonant is said to be checked, one that occurs before another vowel or finally is said to be free. The short lax vowels of German occur only in checked position, the long tense vowels occur in checked position or in free position.

Checked		Free			
/'bįn/	bin	/'tsịə/	ziehe	/'zị/	sie
/'dęn/	denn	/'gẹə/	gehe	/'zẹ/	See
/'dąn/	dann	/'nạə/	nahe	/'zạ/	sah
/'fǫn/	von	/'rọə/	rohe	/'zọ/	so
/'dųm/	dumm	/'rụə/	Ruhe	/'šụ/	Schuh
/'dü̧n/	dünn	/'mụ̈ə/	Mühe	/'frụ̈/	früh
/'gö̧nt/	gönnt	/'flọ̈ə/	Flöhe	/'bọ̈/	Bö
		/'raiə/	Reihe	/'bai/	bei
		/'rǫiə/	Reue	/'hǫi/	Heu
		/'rauə/	rauhe	/'bau/	Bau
		/'zɛə/	säe	/'jɛ/	jäh

This section of the tape consists of comparisons of English /iy/ and /uw/ with German /i:/ and /u:/. These contrasts should be mastered by participants, with attention paid to articulation of the German vowels. German /i:/ is tenser than English /iy/, it is higher, and the lips are more spread. German /u:/ is tenser and higher than English /uw/ and the lips are more rounded

[iⁱ]	[ị:]	[uᵘ]	[ụ:]
fee	Vieh	too	tu'
she	Schi	do	du
knee	nie	coo	Kuh
sheen	schien	moose	Mus
deep	Dieb	hoot	Hut

The following are pairs contrasting German long and short vowels.

/ị:/	/ị/	/ụ:/	/ụ/
mied	mit	Mus	muß
Lied	litt	Fuß	Fluß
liest	List	bucht	Bucht
hießen	hissen	Buße	Busse
bieten	bitten	Huhne	Hunne

English /ey/ and /ow/ are compared with German /e:/ and /o:/. Listen:

[ei]	[ẹ:]	[ou]	[ọ:]
pay	P (letter name)	owe	O (letter name)
bay	B (letter name)	so	so
gay	geh	tone	Ton
vain	wen	shone	schon
bait	Beet	boat	Boot

This section of the tape presents further German contrasts, first /e:/ vs. /i:/, then /o:/ vs. /u:/, then /e:/ vs. /e/, finally /o:/ vs. /o/. These contrasts should be mastered.

/ẹ:/	/ị:/	/ọ:/	/ụ:/
See	sie	schob	Schub
weh	wie	Ton	tun
wen	Wien	tot	tut
denen	dienen	Moos	Mus
beten	bieten	logen	lugen

/ẹ:/	/ę/	/ọ:/	/ǫ/
den	denn	bog	Bock
wen	wenn	Schoß	schoß
Beet	Bett	Ofen	offen
stehlen	stellen	Sohle	solle
fehlen	fällen	wohne	Wonne

First English /a/ is compared with German /a:/, then stressed English /ə/ is compared with German /a/. As with other drills which compare English and German, ask participants to listen but not to repeat.

/a/	/ạ:/	/ʌ/	/a̧/
par	Paar	up	ab
calm	kam	hut	hat
not	Naht	luck	Lack
tot	Tat	bus	Baß
lock	lag	come	Kamm

Further examples of the contrast between German /a/ and /a:/. Listen to the difference in length of vowel segment and repeat.

/a̧/	/ạ:/	/a̧/	/ạ:/
Kamm	kam	Masse	Maße
kann	Kahn	Ratte	rate
satt	Saat	schaffe	Schafe
Stadt	Staat	Hacken	Haken
schlaff	Schlaf	harre	Haare

Various English vowels are compared with German /o/. Listen only.

X	/ǫ/	X	/ǫ/	X	/ǫ/
top	topp	Ross	Roß	caught	Gott
stop	stop	tossed	Post	sought	sott
cot	Gott	cost	Kost	hawk	hocke
dock	Dock	fall	voll	balk	Bock
lock	Locke	tall	toll	calk	Koch
sock	Socke	Saul	soll	naught	Motte

The English speaker needs to be certain to contrast /a/ and /o/ when speaking German, also /a:/ and /o/. This is a sample of the kind of drill which might help establish these contrasts.

/a̧/	/o̧/	/ạ:/	/o̧/
Kamm	komm	kam	komm
Bann	Bonn	Bahn	Bonn
Fall	voll	fahl	voll
Dach	doch	nach	noch
sacke	Socke	Laken	Locken
Hacken	hocken	Haken	hocken
Gassen	gossen	Gas	goß

The front rounded vowels of German present a problem for most English speakers, since they are an unfamiliar combination of familiar distinctive features. Be certain that you control the front unrounded vs. front rounded contrast before proceding to the front rounded vs. back rounded contrast.

Facial diagrams of front unrounded vowels, front rounded vowels, and back rounded vowels should be used here.

/ị:/	/ụ̈:/	/ụ:/	/ụ̈:/
Kien	kühn	Fuß	Füsse
Biene	Bühne	Hut	Hüte
Stile	Stühle	Schub	Schübe
Ziege	Züge	Zug	Züge
liegen	lügen	gut	Güte
/i̧/	/ü̧/	/u̧/	/ü̧/
mißt	müßt	Schuß	Schüsse
Kiste	Küste	Busch	Büsche
sticke	Stücke	Bund	Bünde
Lifte	Lüfte	Kunst	Künste
Kissen	küssen	Mutter	Mütter
/ẹ:/	/ọ̈:/	/ọ:/	/ọ̈:/
Sehne	Söhne	Sohn	Söhne
Lehne	Löhne	Ton	Töne
Hefe	Höfe	Hof	Höfe
lese	löse	Stoß	Stöße
bete	böte	Ofen	Öfen

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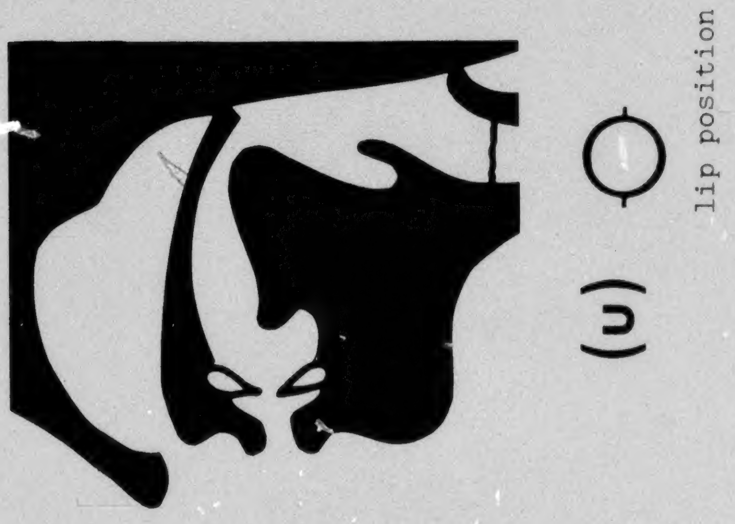
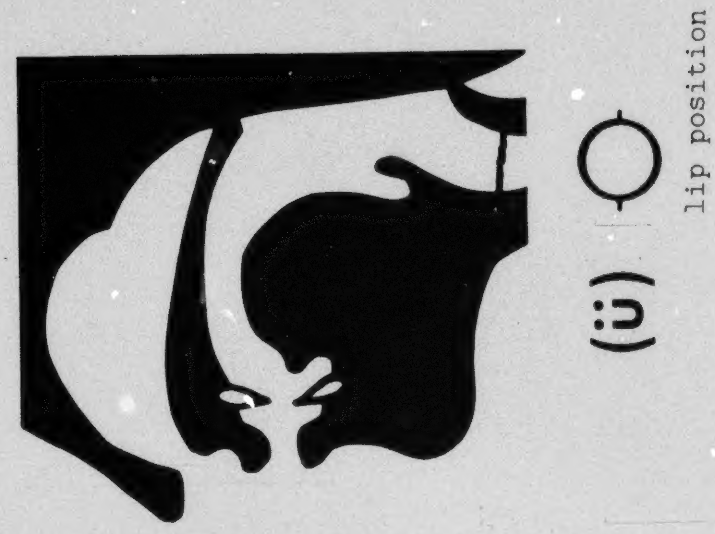

(u)
lip position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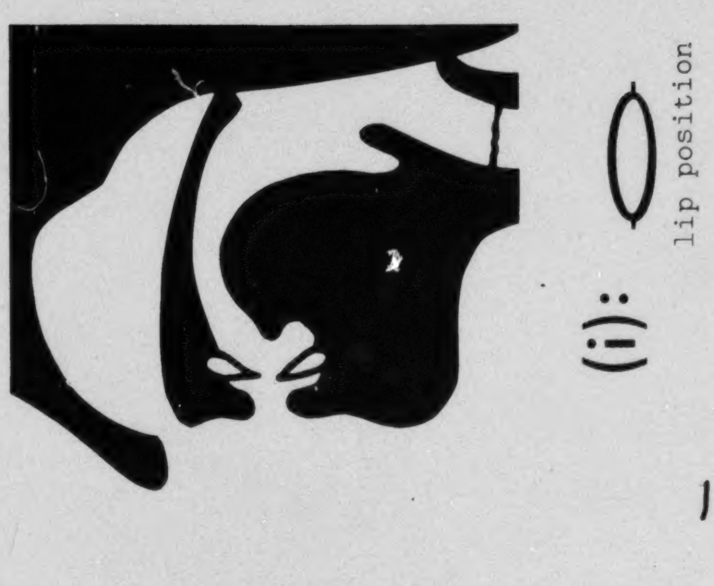
lip position


(i):
lip position

/ę/	/ǫ̈/	/ǫ/	/ǫ̈/
Gent	gönnt	Stock	Stöcke
helle	Hölle	Bock	Böcke
stecke	Stöcke	Kopf	Köpfe
fällig	völlig	Topf	Töpfe
kennen	können	konnte	könnte

This part of tape gives examples of possible English substitutions for German /ö/ and /ö:/. Listen only.

/ɜ/	/ọ̈:/	/ɜ/	/ǫ̈/
burn	schön	Burke	Böcke
earl	Öl	hurler	Hölle
Bergen	Bögen	shirker	Stöcke
learner	Löhne	girder	Götter
sterner	stöhne	kernel	können

Contrary to the normal English tendency to neutralize long-short vowel contrast before /r/, German maintains the contrast, that is, there are pairs of words which differ only in having either a long tense vowel or a short lax vowel before /r/. Listen to and repeat the following items, and compare the situation of English.

[į(ˑ)]	/ị:/	[ų(ˑ)]	/ụ:/
beery	Biere	surer	fuhren
deery	Tiere	poorer	Spuren

[į(ˑ)]	/ị:/	[ų(ˑ)]	/ụ:/
nearer	Niere	touring	Touren
fear	vier	poor	pur
mere	mir	cure	Kur
pier	Pier	moor	nur
[ę(ˑ)]	/ẹ:/	[ɔ(ˑ)]	/ọ:/
Mary	Meere	tory	Tore
vary	wehre	dory	bohre
hairy	Heere	story	schmore
air	er	ore	Ohr
dare	der	more	Moor
lair	leer	four	vor

/ị:/	/į/	/ụ:/	/ų/
ihre	irre	Uhren	murren
zieren	klirren	fuhren	surren
schmieren	schwirren	Fluren	knurren
wir	wirr	Geburt	geknurrt
ziert	wird	fuhrt	Kurt
studiert	geirrt	fuhrst	kurz

/ẹ:/	/ę/	/ạ:/	/ą/	/ọ:/	/ǫ/
Speere	sperre	Haare	harre	Lore	Lorre
zehre	zerre	Schare	scharre	bohrt	Bord
lehre	plärre	sparen	Sparren	Tor	dort
Heer	Herr	Star	starr	vor	fort
begehrt	gesperrt	wahrt	ward	schmort	Sport
gezehrt	gezerrt	Bart	hart	Moor	Mord

/ị:/	/ụ̈:/	/ụ:/	/į/	/ų̈/	/ų/
gebiert	gebührt	Geburt	irden	würden	wurden
schmiert	schnürt	Schnur	Wirte	Kürze	kurze
vier	für	fuhr	Viertel	Gürtel	Wurzel
/ẹ:/	**/ọ̈:/**	**/ọ:/**	**/ę/**	**/ǫ̈/**	**/ǫ/**
Meere	Möhre	Moore	zerre	dörre	Lorre
wehre	Föhre	Tore	Kerne	Körner	vorne
ehren	hören	Ohren	Wärter	Wörter	Worte
er	Öhr	Ohr	Wärme	Hörner	worden
lehrt	stört	bohrt	herrsche	Mörtel	Porsche

The final segment of this tape compares German diphthongs with comparable English diphthongs. Before playing this tape, instructor should have participants read the following lists of English words, to establish the phonetic quality of the participants' normal English diphthongs. (Instructor should transcribe phonetically samples of the participants' readings from the handout, for subsequent conparison with the German diphthongs from the tape.)

/ai/	/ai/	/ɔi/	/ǫi/	/au/	/au/
by	bei	Troy	treu	bough	Bau
fry	frei	ahoy	Heu	row	rauh
mine	mein	annoy	neu	brown	braun
dine	dein	boiler	Beule	house	Haus
bright	breit	loiter	Leute	mouse	Maus
lighten	leiten	royal	Greuel	Cowan	kauen

HANDOUT

/ay/	/ɔy/	/aw/
by	Troy	bough
fry	ahoy	row - /raw/, not /row/
mine	annoy	brown
dine	boiler	house
bright	loiter	mouse
lighten	royal	Cowan

III. Pronunciation Drill Tape III

The first drill on this final tape contrasts /ə/ with /ər/ in various environments: final, before nasal, before /t/ and before /s/. First listen carefully to these contrasts, then spot check among participants to be sure that everyone can produce this difference, which is usually difficult for English speakers.

/ən/ = [n̩]	/ərn/ = [ʌn]	/ət/ = [ət]	/ərt/ = [ʌt]
Minden	mindern	wettet	wettert
Wunden	wundern	endet	ändert
reiten	Reitern	leistet	meistert
öffnen	Öffnern	bindet	hindert
enden	ändern	schneidet	schneidert
/əs/ = [əs]	/ərs/ = [ʌs]	/ə/ = [ə]	/ər/ = [ʌ]
Rittes	Ritters	bitte	bitter
Bannes	Banners	leide	leider
Sieges	Siegers	zeige	Zeiger
Ringes	Ringers	lese	Leser
Bundes	Wunders	Wunde	Wunder

The contrast /ən/ vs /in/ may cause problems for the English speaker and examples are presented here. (Remember that the ending spelled '-en' can be and often is reduced to a syllabic nasal in German, but the ending spelled '-in' must not be reduced to a syllabic nasal.)

/ən/	/ɪn/
Wirten	Wirtin
Fürsten	Fürstin
Baronen	Baronin
Köchen	Köchin
Königen	Königin

Syllabic nasals usually do not cause problems for English speakers, provided the nasal follows a stop, but syllabic nasals following homorganic nasals might be confusing. Both varieties are given here. After examples, there is a recognition drill.

bieten = ['bị:tən] or ['bị:t^{N}n]
Lappen = ['ląpən] or ['lap^{N}m]
recken = ['ʀękən] or ['ʀęk^{N}ŋ]

nennen = ['nęnən] or ['nęnn̩]
kommen = ['kǫmən] or ['kǫmm̩]
singen = ['zįŋən] or ['zįŋŋ̍]

[n]	[nn̩]	[m]	[mm̩]	[ŋ]	[ŋŋ̍]
ihn	ihnen	kam	kamen	Ring	ringen
den	denen	nehm'	nehmen	fing	fingen
Bahn	bahnen	schwamm	schwammen	eng	engen
Lohn	lohnen	klomm	klommen	sang	sangen
Wein	weinen	Reim	reimen	lang	langen

This series of drills contrasts unstressed German vowels with unstressed English vowels, in various environments. These should be treated as listening drills only, with differences pointed out for pairs as they occur on tape.

Formula	German example		English example	
'V-ə	/'kǫmə/	komme	/'kamə/	comma
'V-v	/'autọ:/	auto	/'ɔto/	auto
'V-ə-ə	/'rẹ:dətə/	redete	/'ælǰəbrə/	algebra
'V-v-v	/'nẹ:gatị:f/	negativ	/'redio/	radio
ə-'V	/bə'zụ:x/	Besuch	/ə'go/	ago
v-'V	/bẹ:'tǫ^{n}/	Beton	/ri'ækt/	react

Formula	German example	
v-v-'V-ə ,v-ə-'V-ə	/dẹ:mọ:'krạ:tịš/	demokratisch

German		
'V-ị:	/'bẹ:bị:/	Baby
'V-ẹ:	/'kạfẹ:/	Kaffee
'V-ạ:¹	/'kọmạ:/	Komma
'V-ọ:	/'autọ:/	Auto
'V-ụ:	/'tsụ:lụ:/	Zulu

English /ə/	German /ạ:/	English /ə/	German /ạ:/
comma	Komma	Ida	Ida
sofa	Sofa	Eva	Eva
alpha	Alpha	Anna	Anna
beta	Beta	Allah	Allah
gamma	Gamma	Cuba	Kuba

German			English		
'V-ục	/'ọ:nụ̈ks/	Onyx	'V-ịc	/'anịks/	onyx
'V-ịc	/'ọptịk/	Optik		/'aptịks/	optics
'V-ẹc	/'dẹ:bẹt/	Debet		/'karpịt/	carpet
'V-ạc	/'ạtlạs/	Atlas	'V-əc	/'ætləs/	atlas
'V-ọc	/'bịšọf/	Bischof		/'bịšəp/	bishop
'V-ục	/'mị:nụs/	minus		/'mainəs/	minus

German /'V-v-v/		English /'V-ə-ə/	
/'mị:nị:mụm/	Minimum	/'mịnəməm/	minimum
/'nụ:mẹ:rụs/	Numerus	/'numərəs/	numerous
/'nẹ:gạ:tị:f/	negativ	/'nẹgətịv/	negative
/'pẹ:gạ:zụs/	Pegasus	/'pẹgəsəs/	Pegasus
/'pẹrgọ:lạ:/	Pergola	/'pɜgələ/	pergola
German /'V-v-v-v/		**English /'V-ə-ə-ə/**	
/'nọ:mị:nạ:tị:f/	Nominativ	/'namənətịv/	nominative
/'kọmpạ:rạ:tị:f/	Komparativ	/'kampərəbəl/	comparable
/'zụ:pẹrlạ:tị:f/	Superlativ	(/sə'pɜlətịv/	superlative)

In free syllables					
/ị:/	/mị:'lị:ts/	Miliz	/ị/	/mị'lẹnị:ụm/	Millenium
/ẹ:/	/ẹ:'rọ:tịš/	erotisch	/ẹ/	/ẹ'rạ:tịš/	erratisch
/ọ:/	/kọ:'lọnə/	Kolonne	/ọ/	/kọ'lẹ:gə/	Kollege

		In free syllables			
/ụ:/	/kụ:'ra̩nt/	kurant	/u̩/	/ku̩'re̩nt/	kurrent
/ụ̈:/	/dụ̈:'nạ:mi̩š/	dynamisch	/ü̩/	/zü̩'mẹ:tri̩š/	symmetrisch
		In checked syllables			
/i̩/	/i̩n'ta̩kt/	intakt	/o̩/	/bro̩n'çị:ti̩s/	Bronchitis
/e̩/	/be̩n'tsị:n/	Benzin	/u̩/	/bu̩l'gạ:rĬən/	Bulgarien
/a̩/	/ba̩k'tẹ:rĬən/	Bakterien	/ü̩/	/zü̩m'bọ:li̩š/	symbolisch

	German /v-'V . . ./	
/ị:/	/tsị:'ga̩rə/	Zigarre
/i̩/	/di̩'fụ:s/	diffus
/ẹ:/	/ẹ:'le̩ktri̩š/	elektrisch
/e̩/	/e̩'fe̩kt/	Effekt
/a̩/	/a̩'fe̩kt/	Affekt
/ạ:/	/bạ:'nạ:nə/	Banane
/o̩/	/ko̩'la̩ps/	Kollaps
/ọ:/	/kọ:'lu̩mbu̩s/	Kolumbus
/u̩/	/ru̩'pị:n/	Ruppin
/ụ:/	/hụ:'mạ:n/	human
/ü̩/	/zü̩'mẹ:tri̩š/	symmetrisch
/ụ̈:/	/psụ̈:'çọ:zə/	Psychose

/,v-ə-'V . . ./ in /,kampə'ti̩šən/ competition
/ə-,v-'V . . ./ in /ə,le̩k'tri̩šən/ electrician

/,v-ə-ə-'V . . ./ in /,rætəfə'kešən/ ratification
/ə-,v-ə-'V . . ./ in /ə,palə'ǰe̩ti̩k/ apologetic
/,v-ə-,v-ə-'V . . ./ in /,e̩kskə,mjunə'kešən/ excommunication

/v-v-'V/ in /ẹ:lẹ:'fa̩nt/ Elefant
/v-v-v-'V/ in /fị:lọ:zọ:'fị:/ Philosophie
/v-v-v-v-'V/ in /a̩ntrọ:pọ:lọ:'gị:/ Anthropologie
/v-v-v-v-v-'V/ in /dẹ:mọ:rạ:lị:za̩'tsĬọ:n/ Demoralisation

German /v-v-'V . . ./	
phi̱lo̱sophisch	/fị:lọ:'zọ:fı̩š/
auto̱matisch	/autọ:'mạ:tı̩š/
aka̱demisch	/ạ:kạ:'dẹ:mı̩š/
alko̱holisch	/a̩lkọ:'họ:lı̩š/
de̱mo̱kratisch	/dẹ:mọ:'krạ:tı̩š/
aro̱matisch	/ạ:rọ:'mạ:tı̩š/
alge̱braisch	/a̩lgẹ:'brạ:ı̩š/
atmo̱sphärisch	/a̩tmǫ'sfɛ:rı̩š/
Affi̱davit	/a̩fị:'dạ:vı̩t/
Appa̱rat	/a̩pạ:'rạ:t/
Makka̱roni	/ma̩kạ:'rọ:nị:/
Ala̱bama̱	/ạ:lạ:'bạ:mạ:/
Co̱lo̱rado	/kọ:lọ:'rạ:dọ:/
Kali̱fornien	/kạ:lị:'fǫrnɪən/

German /v-v-v-'V . . ./	
aqua̱ma̱rin	/ạ:kvạ:mạ:'rị:n/
anthro̱po̱logisch	/a̩ntrọ:pọ:'lọ:gı̩š/
ento̱mo̱logisch	/e̩ntọ:mọ:'lọ:gı̩š/
senti̱mental	/ze̩ntị:me̩n'tạ:l/

Some time should be allotted during which participants can ask any questions that came up during the session which were not handled or perhaps not thought of at the time.

Assignment sheet:

Reread Chapters 6-9 of Moulton, in light of material presented in this session.

Read Chapters 10-12 for next session.

Prepare a mini lesson for one of the following (instructor will assign specific topics to individuals).

a) contrast /u/ with /ü/; /u:/ with /ü:/. end with discrimination test.

b) contrast /u/ with /uː/; prepare discrimination test.

c) prepare lesson illustrating various vowels before /r/, both final /r/ and intervocalic /r/. This will serve to reinforce /r/ also.

d) prepare contrast drill for final [ə] vs. final [ʌ].

Key explanations and drills to your textbook, as much as possible.

SESSION IV

TOPIC	TIME	MATERIALS	PAGE
Questions from rereading of Moulton, Chapters 6-9	25 min.		118
Presentation of assigned mini-lessons	25 min.		
Questions from reading of Moulton, Chapters 10-12	15 min.		
I. Suprasegmentals (English; German; comparison)	40 min.	Moulton, Chaps. 10-12	119
A. Stress			
B. Pitch			
C. Juncture			
D. Handout	15 min.	Handout on Suprasegmentals	
BREAK	20 min.		
II. Sentence types	30 min.	Kufner, Chap. 1	124
III. German clauses	50 min.	Kufner, Chap. 2	124
A. Major clause types			
B. Clause element: definition and identification			
C. Verb-second clauses			
General, superficial discussion of subjunctive forms			
General, superficial discussion of imperative forms			

SESSION IV (continued)

TOPIC	TIME	MATERIALS	PAGE
D. Verb-first clauses ('yes-no' questions)			
E. Verb-last clauses Clause introducers: 1. Question word 2. Subordinating conjunction 3. Relative pronoun 4. 'ob' 5. (dependent clause with verb-first, similar to structure of 'yes-no' question)			
F. Negation			
G. Handout on clause negation	20 min.	„nicht" ist nicht schwer - Handout	
Assignment			133
Evaluation			

SESSION IV

Questions and Discussion of Previous Session

First see if there are any questions over material presented in previous session, or any questions over units 6-9 of Moulton, which the participants were asked to reread for this time.

Next have participants present lesson they prepared for this time, from assignment sheet of previous session. Watch for the following points in the respective lessons:

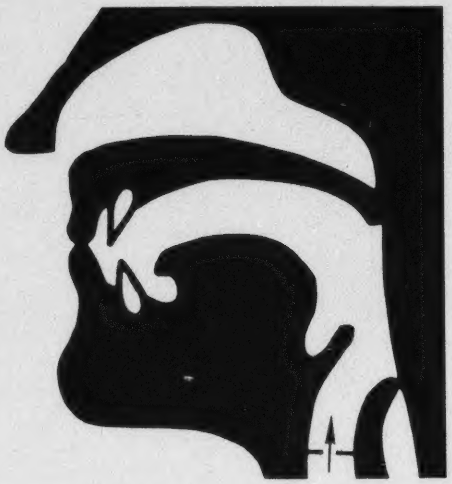
a) check for accurate articulatory description: /u/ and /u:/ are high back rounded vowels, /ü/ and /ü:/ are high front rounded vowels; /u:/ is higher and also much tenser than /u/; /ü:/ is higher and also much tenser than /ü/.

b) see explanation for a) above.

c) /ə/ plus final /r/ is phonetically [ʌ]; other vowels before final /r/ maintain their quality, and long vowel vs. short vowel contrasts are maintained in German, but the /r/ is realized phonetically as [ʌ]; before intervocalic /r/, watch for long vowel vs. short vowel contrasts, and that the /r/ is either [R] or [ř], depending on the individual's preference (but consistantly one or the other): note that /ə/ can occur before intervocalic /r/ in such items as 'Lehrerin'.

d) check carefully for accurate phonetic description and for accurate pronunciation on the part of the teacher.

ARTICULATION OF ENGLISH SOUNDS



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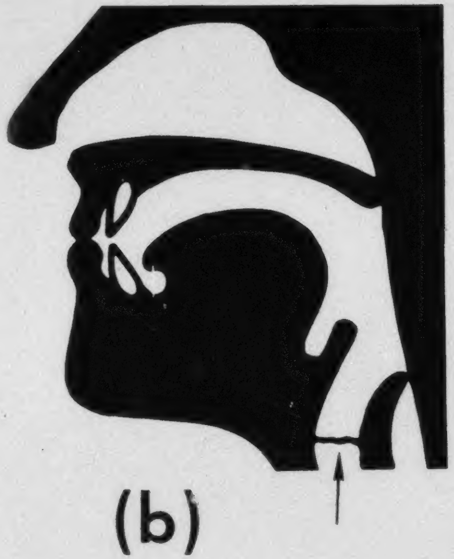

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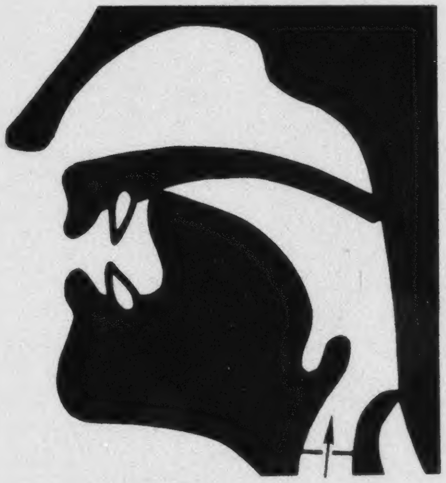

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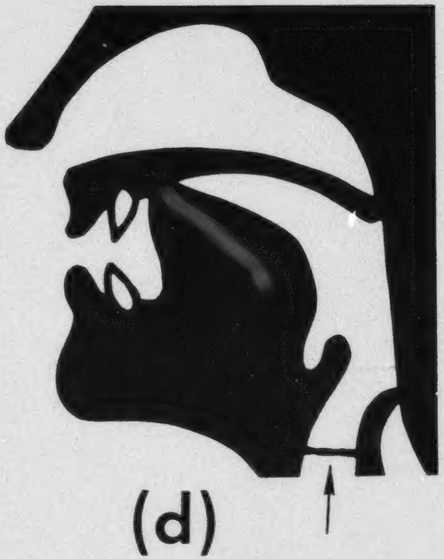

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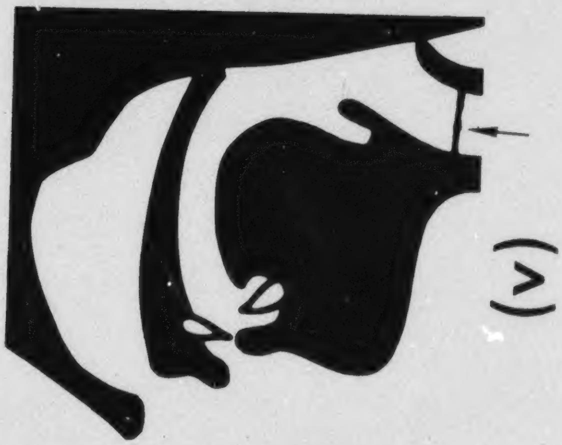
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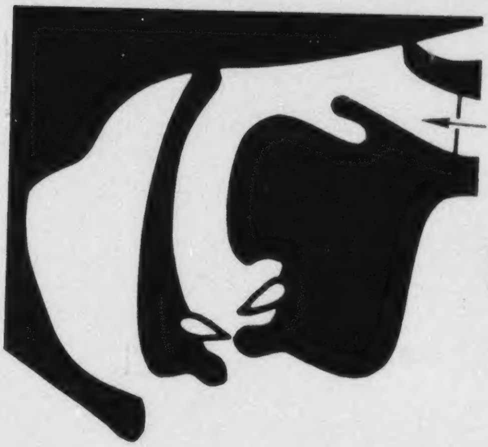
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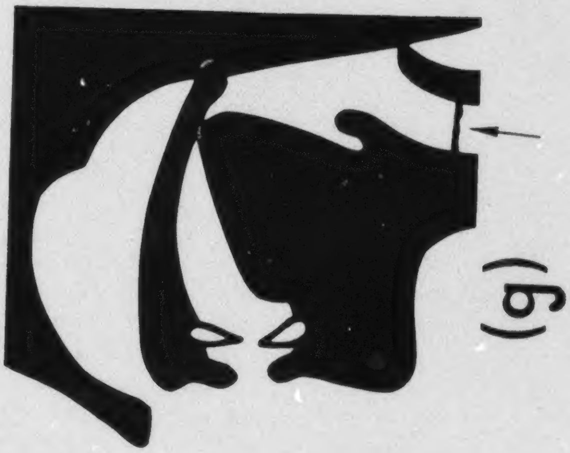
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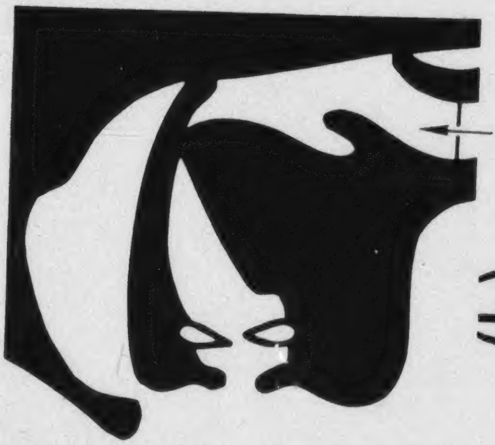
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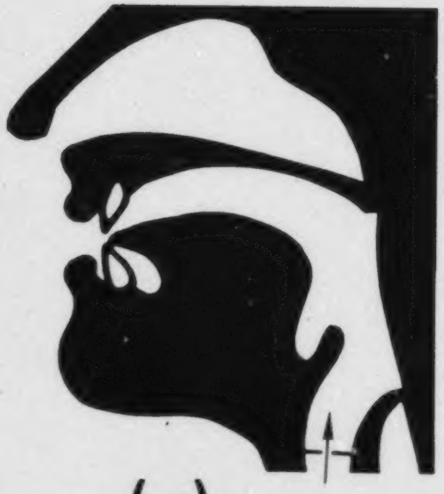
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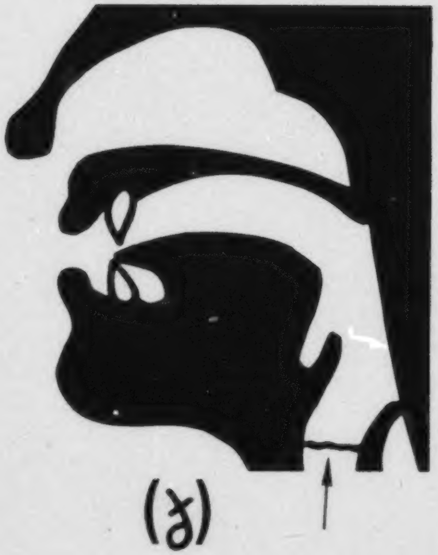
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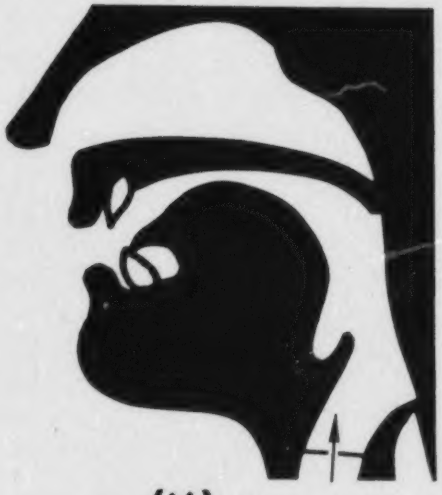
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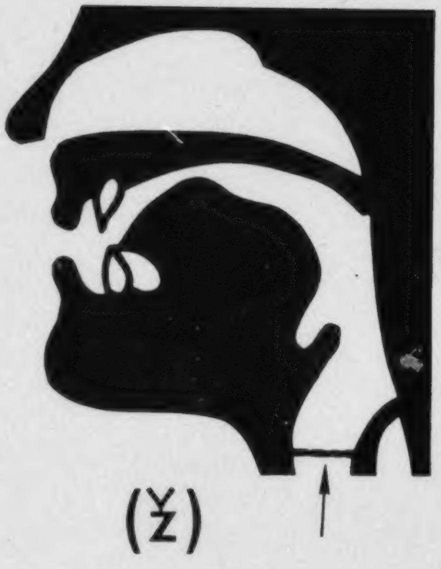
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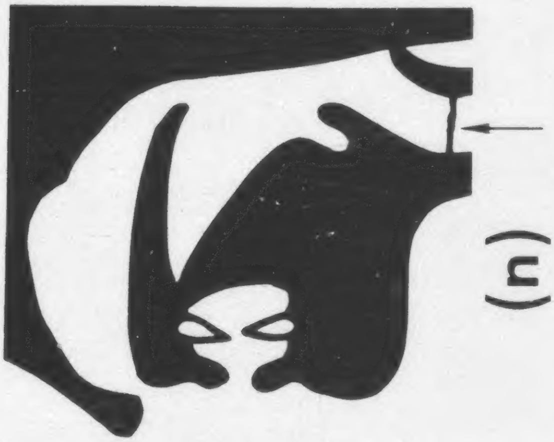

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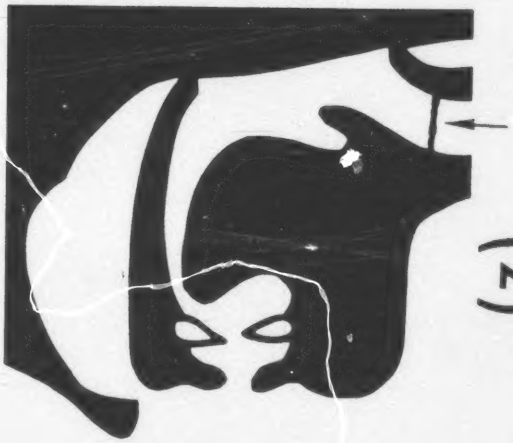

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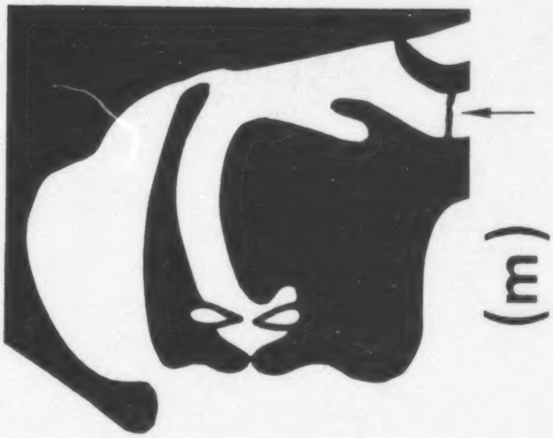

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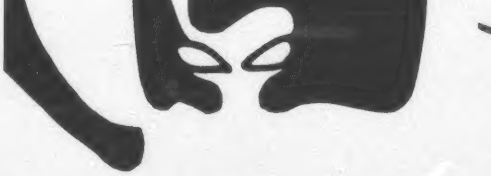

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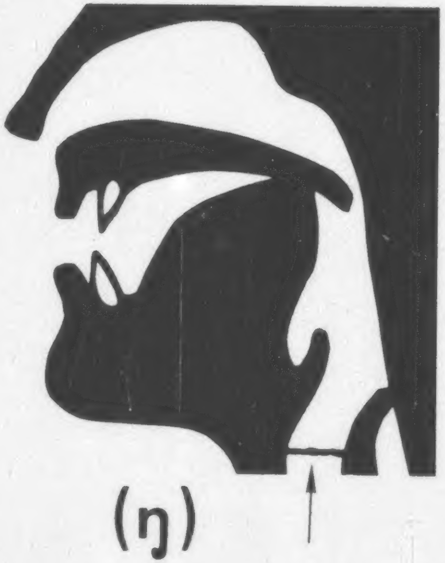
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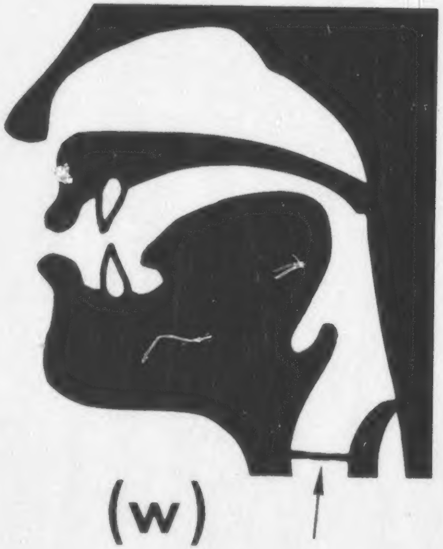
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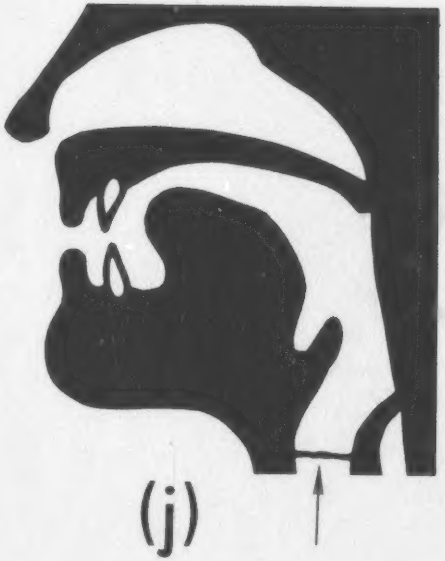
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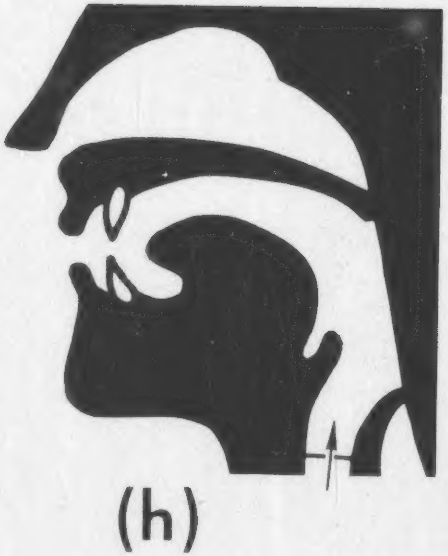
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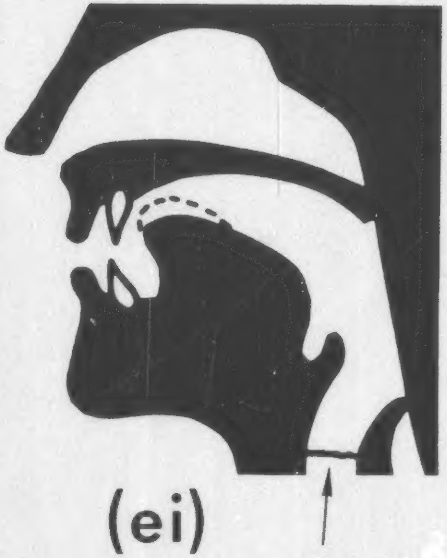

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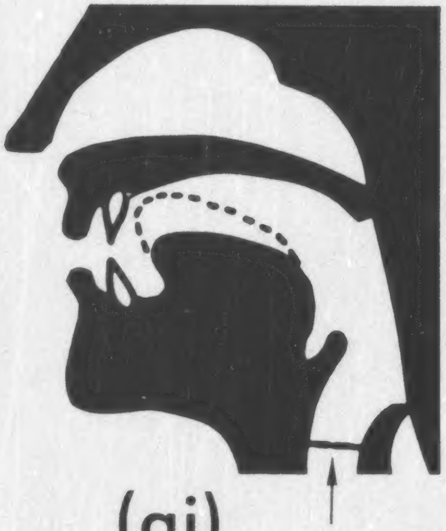

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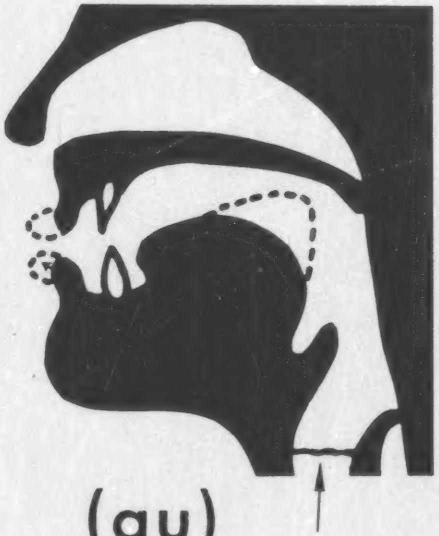

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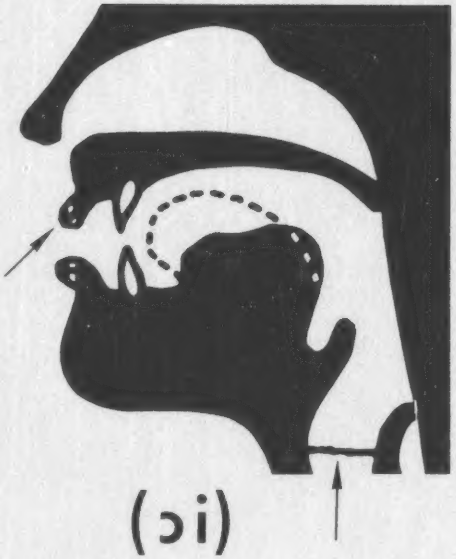

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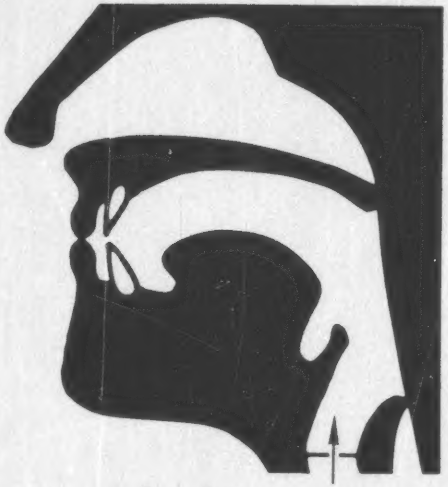
ARTICULATION OF GERMAN SOUNDS



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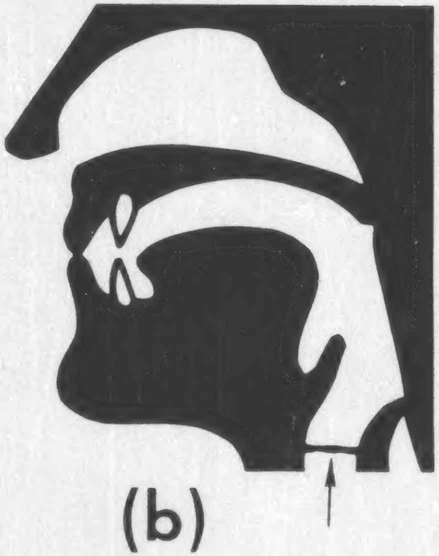

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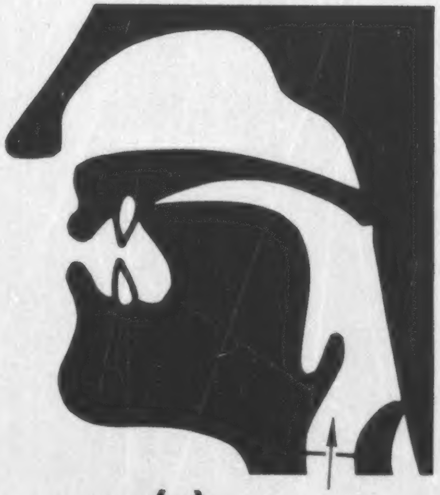

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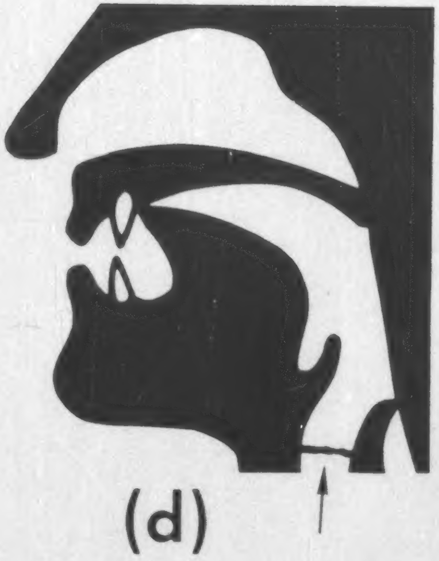

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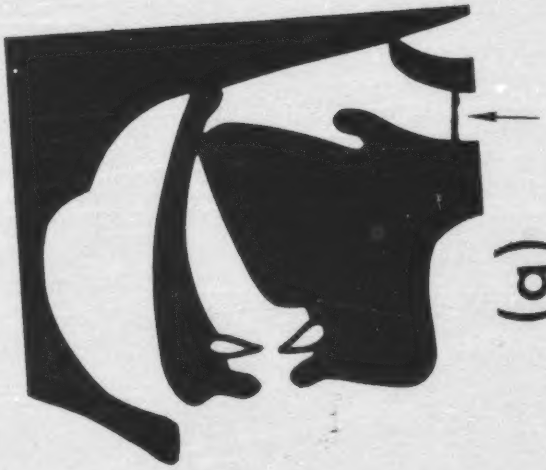

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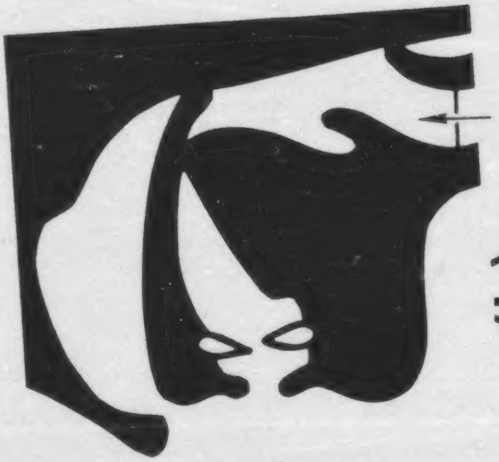

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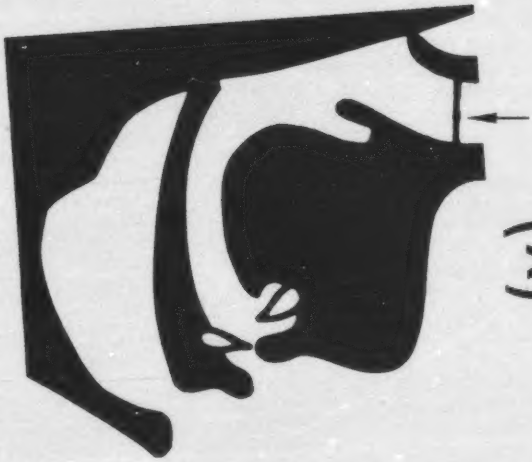

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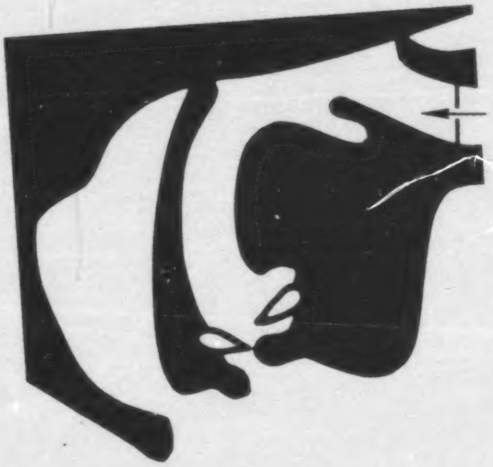

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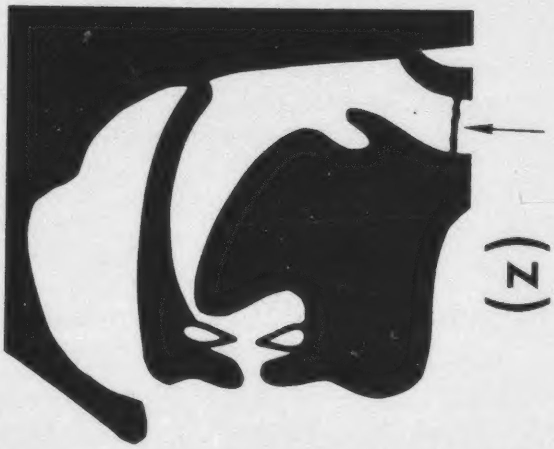
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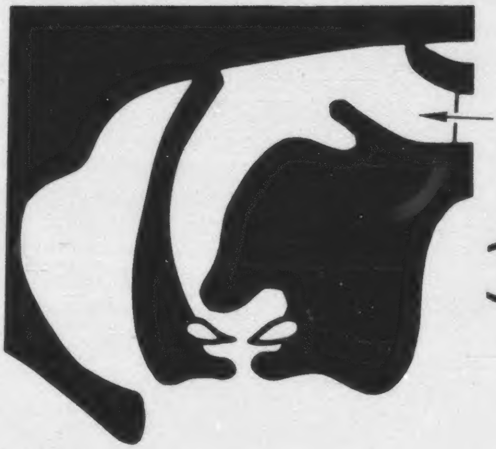
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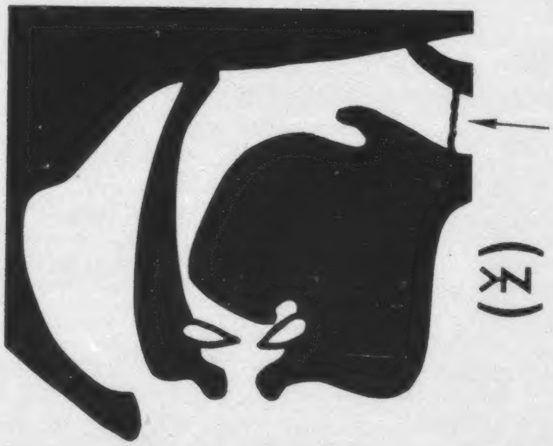
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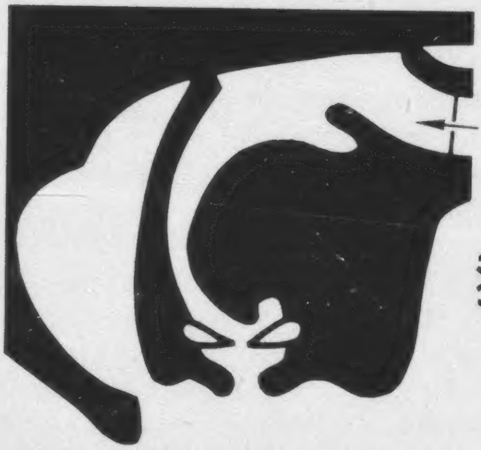
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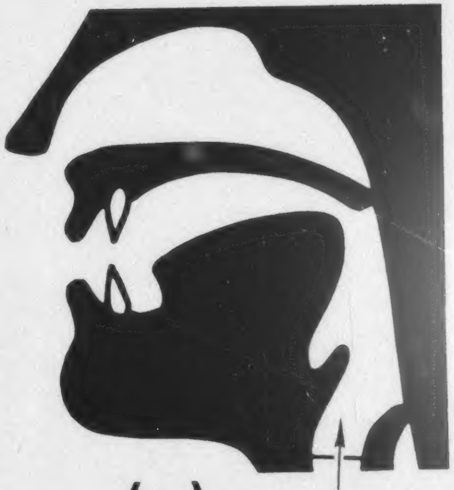

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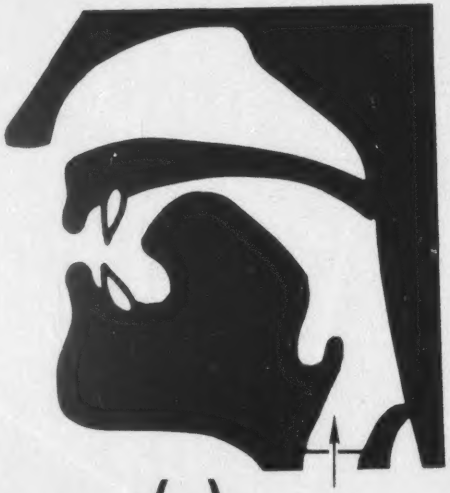

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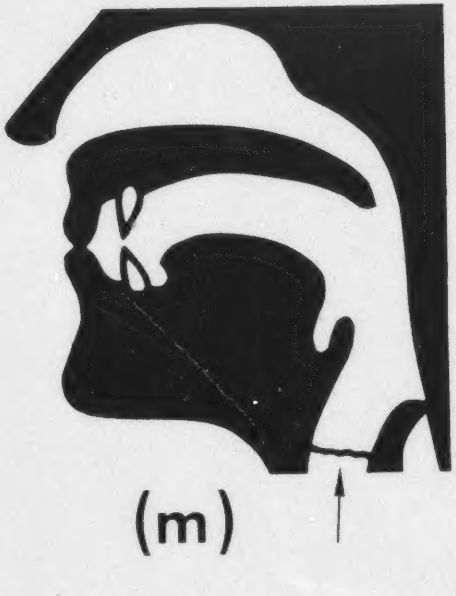

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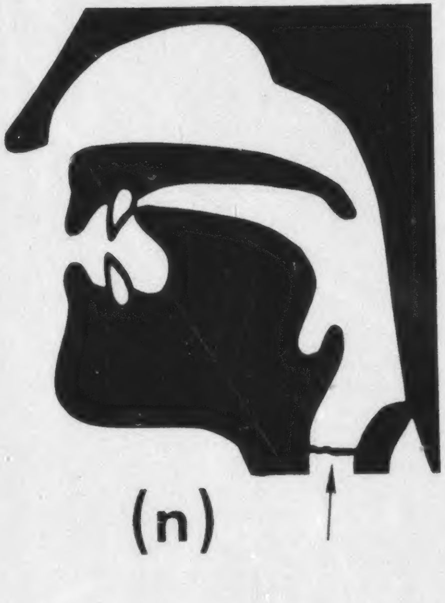

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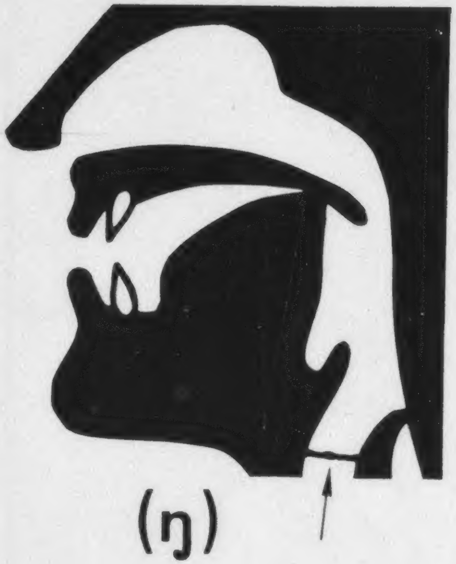

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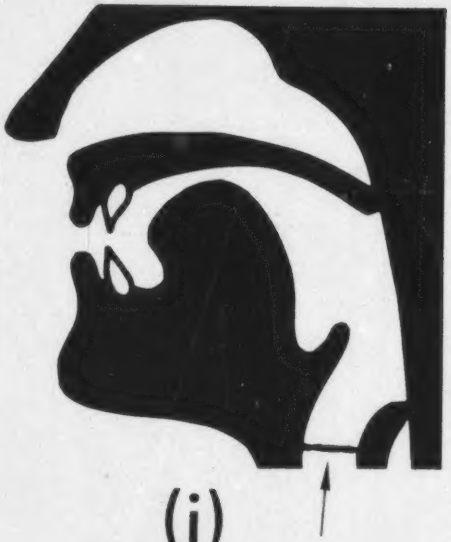

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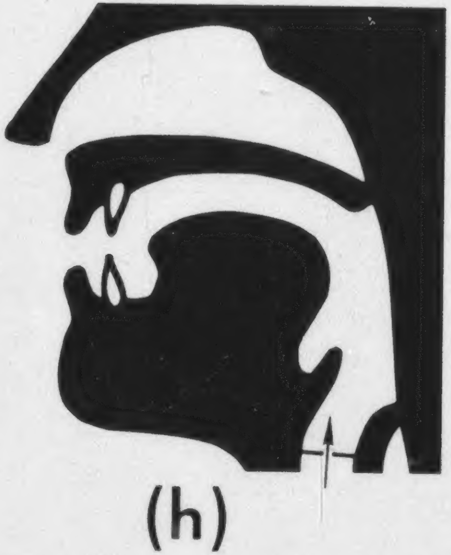

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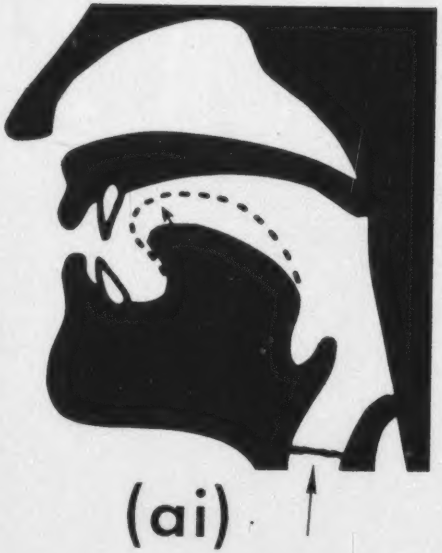

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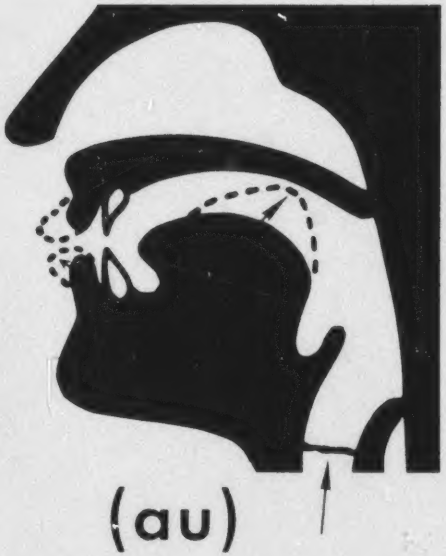

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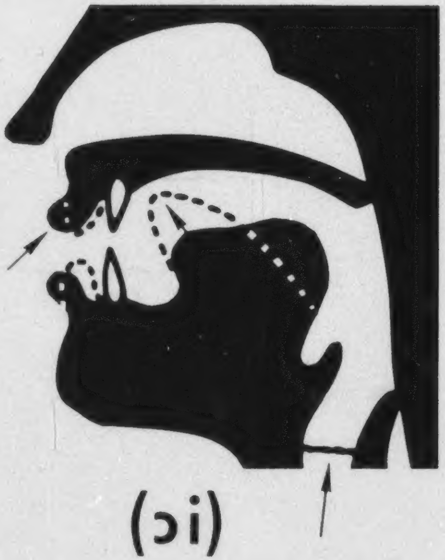


(ɔi)

Instructor - After going over the facial diagrams, pass out page 118n and have participants identify the sound represented by the diagrams:

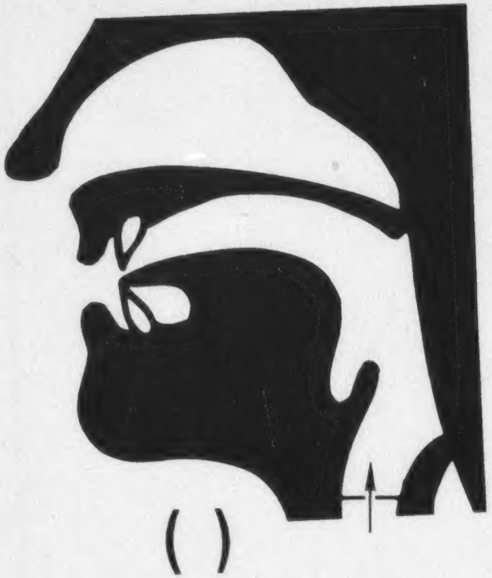
[θ] [b]

[x] [n]

Then pass out page 118 o and have participants fill in the diagrams according to the symbols given. Watch for 1. lip position; 2. velic position; 3. tongue position; 4. voiced or voiceless.

Finally, ask participants to diagram, freehand, [ŋ], [g], [f] and [t].

Identify the sounds represented in the facial diagrams by placing the appropriate symbol in the brackets (parentheses) accompanying each drawing.



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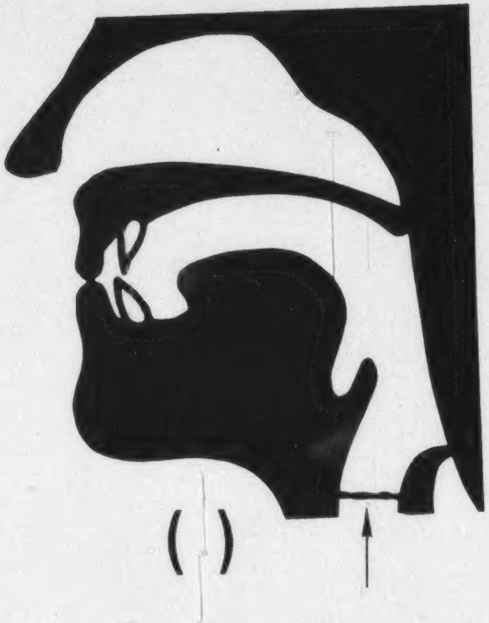

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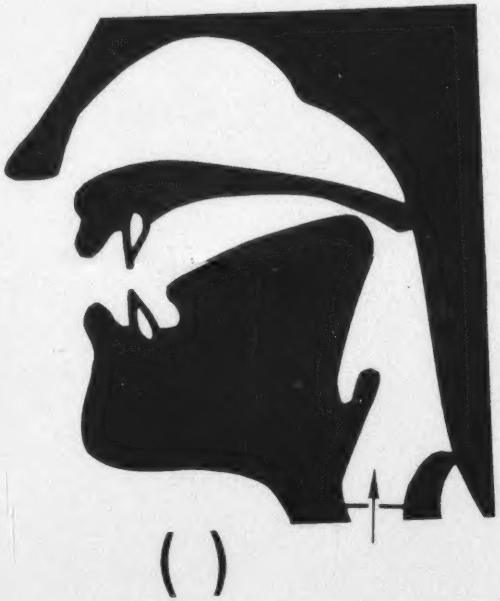

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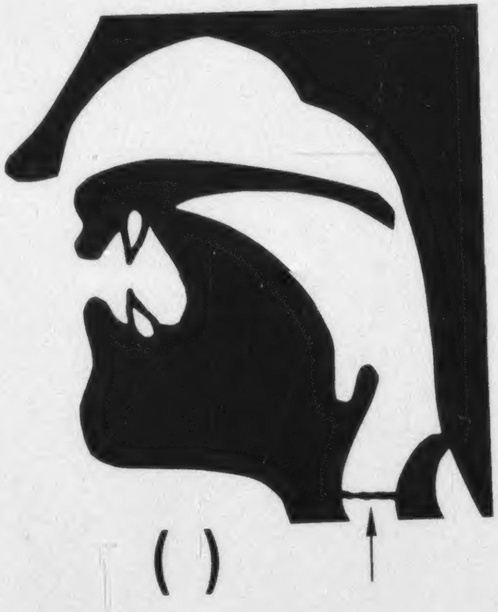

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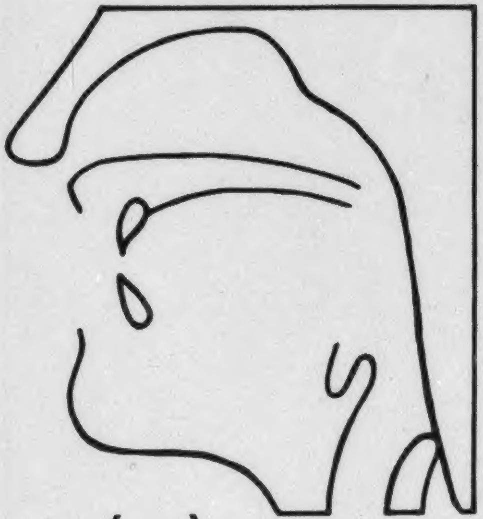
Complete the following drawings according to the symbols listed in the brackets (parentheses).



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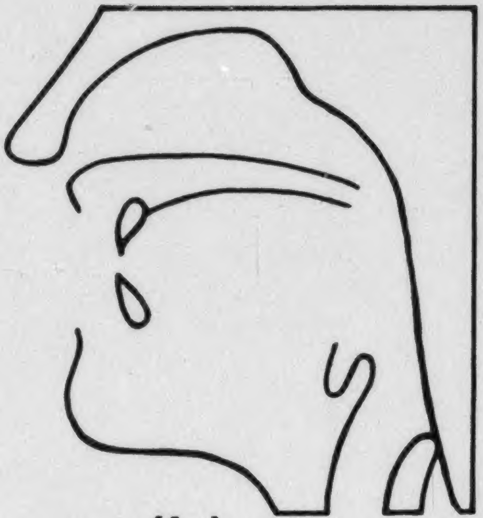

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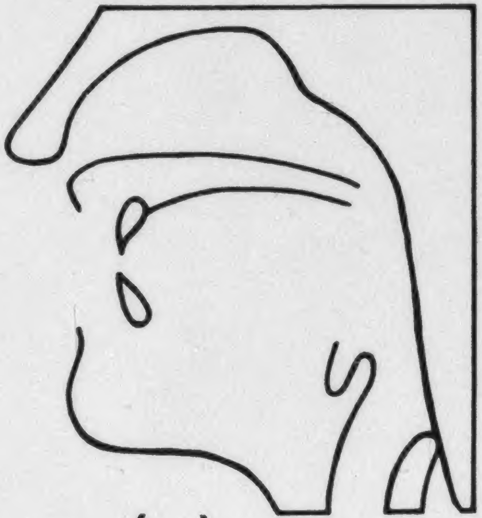

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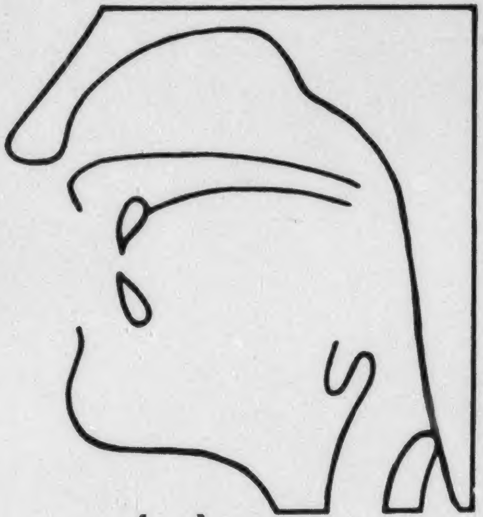

(v)

(Ask if there are any questions over the assigned reading from Moulton, Chapters 10-12. Suprasegmentals will be handled at the beginning of this session, so treat only general questions.)

Stress: Phonetically, stress is perceived relative loudness; phonemically, in both English and German, stress can be characterized as the relative prominence of individual syllables.

(Instructor: discuss pairs that are minimal in terms of stress, such as: English: bláckbird vs. black bírd, the Whíte House vs. the white hóuse, ínsert vs. insért; German: Áugust vs. Augúst, wíederholen vs. wiederhólen. Discuss also stress shifts in German, such as hólen vs. ábholen. Here stress takes on a further function: instead of simply differentiating pairs of words, it indicates that the prefix of 'abholen' is a separable prefix, which acts in certain ways depending on the syntax of the sentence in which it is used.

Discuss syntactic stress as presented by Moulton in Chapter 10. He separates word stress (three degrees) from syntactic stress (the strongest stress in any stress group--one degree only, which is stronger than primary word stress). Be careful not to confuse primary word stress with the primary stress discussed by Trager and Smith. Moulton's primary word stress is equivalent to Trager-Smith secondary stress in connected speech, but equivalent to Trager-Smith primary stress in citation forms.

Compare stress patterns of compounds for English and German. Especially in combinations of adverb + verb, stress placement is important; the English and German systems should be compared and contrasted.

Stress contrasts are compared to lexical contrasts for English and German in Section 10.14 (p.126) of Moulton. Also covered is the idea of the contrast between the way the two languages handle the distinction between article, modifying numeral and independent numerals. The problems which are caused by vocabulary entries which list 'jener' as equivalent of 'that' are also cited, and should be brought up, because this question is one which comes up very often in the classroom, even for advanced students. 'Jener' is used, in speech, primarily as the equivalent of English 'the former' as contrasted with 'dieser'-'the latter'. Otherwise 'jener' rarely occurs in normal conversation.

Intonation:

Define pitch in phonetic terms: the fundamental frequency of speech sounds (measurable in cycles per second). Mention the fact that some languages use pitch differences to signal differences in lexical meaning (usually called 'tone' in such cases), but that German and English use pitch differences only to signal differences in syntactic, or grammatical, meaning.

Proceed to normal pitch sequences for various intonation patterns in English and in German, and compare the two systems.

The terminal junctures, /↓/, /↑/, and /→/ should be discussed in conjunction with intonation patterns, including statements as to normal occurrences of the three.

Moulton's section on conflicts in the use of intonation, 11.10 (page 137), contains examples with statements that are questionable or at least cannot be considered as categorical. The example on page 138, ^{2}ˌgood ^{3}'morning ˌMiss 'Brown^{1}, does not necessarily sound like a reproof, at least not for all speakers of English. These statements regarding implications of intonation patterns should be tried out in the geographical area where they are to be discussed.

Juncture:

Having treated the terminal junctures as part of intonation, Moulton discusses only open and close juncture here. Open juncture has been called 'plus juncture' by other authors. The example /'ðætsfə'risə ti/ could be interpreted three ways, as "that sphericity," "that's phericity" or "that's for (reduced to 'fer') Icity (a family name)." Moulton's term 'clear syllable break' is misleading, since syllable breaks are not often clear, and often cannot be identified from the physical facts of an utterance. What the listener probably does is interpret the timing pecularities of the various sound types and imply syllable breaks which are very seldom (usually only in over-careful speech designed to overcome a misunderstanding which has occurred) clear or even real pauses, that is, stretches of actual silence. Speech with periods of silence between syllables or even between words, no matter how short these periods of silence are, is unnatural and sounds like a child just learning to read. Spectographic records of actual conversation show very few periods of silence (except of course those that occur during the articulation of voiceless stops, which are in actuality silent during their time of closure).

Discuss effects of open juncture, or plus juncture: aspiration, the glottal stop (in German, mandatory before initial vowels), syllabification, consonant clusters and sequences ('Kauf Lachs!' vs. 'Kaû Flachs!'; 'why choose?' vs. 'white shoes').

Spectrographic analysis of speech indicates that plus juncture is actually a timing phenomenon, which should be written in the segmental level as is vowel length, which consists of a lengthening of the previous segment in much the same way that the terminal junctures lengthen previous segments to varying degrees.

HANDOUT

Place the internal open juncture in the following words, as well as marking primary word stress:

English: blackbird greenhouse intent

German: Trostpreis verteilen Verein

Use the following in sentences that indicate the differences in meaning: /blǽk+bə̀rd/ - /blæ̂k+bə́rd/

/víːdər+hôːlən/ - /vìːdər+hóːlən/

Sentence types: Discuss sentence types as presented in Kufner. (In his discussion of sentence types, Kufner divides utterances into two classes, normal sentences and abnormal sentences. Normal sentences are those which end with one of these pitch patterns: ...3-1, ...2-1, or ...3-3. Utterances which end in any other pitch pattern are abnormal sentences. Normal sentences are further divided into major sentences and minor sentences. Major sentences are those normal sentences which contain a finite verb form in an independent clause, and minor sentences are all other normal sentences. Note that type B .1.a of the plain minor sentences in Kufner's classification (page 3) are examples of what other grammarians call "impersonal imperatives." Major sentence types are classified according to five sets of binary oppositions. The resulting classification may seem a bit awkward, but it does include all possible German sentence types, and does treat sentences which are structurally alike as having the same fundamental structure, even if they are greatly different in length. (see page 5 for example.)

German clauses: The most common type of clause in German is the type which has the finite verb in second position. (The finite verb is that word in a sentence which agrees with the subject, which must be changed if the subject is changed as from singular to plural, etc.)
(In discussing German clauses, it is necessary to have an awareness of what a clause element is, since in independent clauses the position of the verb is fixed, as the second element. A

word, a phrase, or a clause can precede the finite verb, with certain restrictions: an item which is part of a larger syntactic unit cannot be separated from the other parts of that unit. (Present the three English sentences on page 10 of Kufner, and discuss the nine German sentences on page 10. Follow with presentation of various kinds of sentence elements, as presented on page 11.)

Since Kufner's classification of clause types is based on the finite verb form, it is necessary at this point to discuss the subjunctive. Instructor should give a brief presentation of the forms of the subjunctive. Kufner calls the two kinds of German subjunctive the general subjunctive and the special subjunctive. The general subjunctive is the form which is based on the past stem of the verb. This form is given various names by different authors (past subjunctive, imperfect subjunctive, conditional, subjunctive II). The special subjunctive then is the form which is based on the present stem of the verb. Other names for the special subjunctive are: present subjunctive, indirect discourse subjunctive, subjunctive I.

(Imperative forms must also be considered here. Note that Kufner treats utterances of the type 'bleiben Sie hier!' and seien Sie froh!' as forms of the special subjunctive, whereas others, especially in elementary textbooks, treat utterances of this type as imperatives. In the teaching situation, it is perhaps easier to treat such forms as imperatives and explain that the verb form for the so-called polite imperative is identical with the infinitive form except for the verb 'sein', which has its own polite imperative form, viz. 'seien'. Note also that by interpreting the polite imperative as a subjunctive raises problems in the case of verbs whose infinitive ends in '-n' rather than '-en': the special subjunctive ending for all verbs in third person plural is '-en', but the polite imperative of 'tun Sie!', not 'tuen Sie!'.

(the 'order question', otherwise known as 'yes-no' question, with the finite verb in first position, should be presented as per Kufner, as well as dependent clauses. Note that Kufner's statement regarding a dependent clause introduced by a question word, that is, that German word order is almost identical with English in this case, can be misleading. The rule that the finite verb follows the subject in English utterances which are not questions holds true here. Compare Kufner's example

Can you tell me: "Where is the station?"
Can you tell me where the station is?

with a further example in which the German word order is not identical with English:

Can you tell me: "When will she be home again?"
Can you tell me when she will be home again?
Könnten Sie mir bitte sagen: „Wann wird sie wieder zu Hause sein?"
Könnten Sie mir bitte sagen, wann sie wieder zu Hause sein wird?

(Procede to discuss the five types of independent clause structures: those introduced by a question word, a subordinating conjunction, a relative pronoun, 'ob', and those dependent clauses without introduction.

(The final treatment in Kufner's section on German clauses concerns negation. Again the statements made here tend to oversimplify the problems American students have when learning German. The statement: "A speaker of German can negate any affirmative clause simply by the insertion of 'nicht' disregards such pairs as: 'er hat Zeit' vs. 'er hat keine Zeit.'

In addition, the placement of 'nicht' is problematical for most students. The following handout contains some rules for the placement of 'nicht' which covers the various possibilities. Participants should be asked to read the handout and then to negate the twenty example sentences as practice in the application of the rules. Note that the second part of the first rule needs a bit of attention. A sentence like "Die Mutter kauft nicht das teure, sondern ein billigeres Fahrrad." is a perfectly normal, acceptable utterance, but that something like "Die Mutter kauft nicht das teure" is felt by native speakers of German to be very nearly ungrammatical, unless it is apparent that the speaker had every intention of supplying "sondern ein billigeres Fahrrad" and was interrupted or the like. "Die Mutter kauft nicht das teure" can be said to be grammatical in the same sense that English would allow "The mother is buying not the expensive one." For native speakers of English, this latter example would be acceptable only if it was felt that the speaker intended to supply something like "but rather a cheaper one." "The mother is buying not the expensive one", if it occurred alone and out of context, would be rejected by native speakers of English as non-grammatical.

„nicht" ist nicht schwer!

Vielen Ausländern bereitet es Schwierigkeiten, den richtigen Platz für die Negation „nicht" im Satz zu finden. Wenn Sie sich aber an ein paar einfache Regeln halten, kann eigentlich nicht mehr viel passieren:

1. Die Negation steht nach den direkten Objekten.

   Also: Ich bezahle die Rechnung nicht.
   Die Mutter kauft dem Kind das teure Fahrrad nicht.

   Wenn Sie die Stellung von „nicht" ändern, wird nur ein Satzteil verneint, nicht der ganze Tatbestand. Die Mutter kauft nicht das teure, sondern ein billigeres Fahrrad.

2. Die Negation steht vor dem zweiten Prädikatsteil.

   Also: Ich werde die Rechnung nicht bezahlen.
   Die Mutter hat das Fahrrad necht gekauft.
   Der Zug fährt noch nicht ab.
   Der Film ist nicht interessant.

3. Die Negation steht sehr oft vor präpositionalen Ausdrücken, immer vor präpositionalen Objekten.

   Also: Betreten Sie den Rasen nicht! aber: Treten Sie nicht auf den Rasen!
   Ich habe Herrn Müller nicht erwartet. aber: Ich habe nicht auf Herrn Müller gewartet.

4. Die Negation steht vor dem Objekt, wenn es mit dem Verb eine feste Verbindung bildet, wenn man es fast wie einen Verbzusatz empfindet.

HANDOUT

Also: Ich spiele nicht Klavier.
Er läuft nicht Schlittschuh.
Warum hast du Peter nicht die Hand gegeben?
Peter studiert nicht Medizin.

Wollen Sie es selbst einmal versuchen? Verwenden Sie das Wort „nicht" in den folgenden Sätzen:

A.

1. Peter kommt. 2. Peter will kommen. 3. Peter will morgen kommen. 4. Peter will morgen zu mir kommen. 5. Das kommt in Frage! 6. Fettes Essen bekommt mir. 7. Herr Braun hat die Stellung beim Rundfunk bekommen. 8. Ich überquere die Straße. 9. Ich gehe über die Straße. 10. Haben Sie den Brief in den Briefkasten gesteckt? 11. Er spielt Tennis.

Ob Sie es richtig gemacht haben, können wir jetzt sehen. Wollen Sie es noch einmal versuchen? Dann antworten Sie bitte auf alle Fragen. Zur Erinnerung: Die Negation von „schon" ist „noch nicht", die Negation von „noch" heißt „nicht mehr".

B.

1. Ist Herr Müller hier? - Nein,...
2. Warten Sie schon lange? - Nein,...
3. Fahren Sie Auto? - Nein,...
4. Sehen Sie das Auto? - Nein,...
5. Wohnt Ihr Vater noch in Berlin? - Nein,...
6. Haben Sie schon Kaffee getrunken? - Nein,...
7. Trinken Sie den Tee noch? - Nein,...

HANDOUT

8. Kann man die Brücke mit Lastwagen befahren? - Nein,...

9. Kennen Sie den Schluß des Romans? Nein,...

10. Müssen wir jetzt Schluß machen? - Nein,...

Instructor: Answer sheet for parts A and B of „nicht" ist nicht schwer.

A. 1. Peter kommt nicht.

2. Peter will nicht kommen.

3. Peter will morgen nicht kommen. ('Peter will nicht morgen kommen' is possible under the circumstances referred to on page 128. With this word order, the greatest stress would fall on 'morgen'.)

4. Peter will morgen nicht zu mir kommen. ('Peter will nicht morgen zu mir kommen' is possible as in number 3, with major stress on 'morgen'; the implication is 'not tomorrow but at some other time'. The negation cannot occur after 'zu mir'.)

5. Das kommt nicht in Frage!

6. Fettes Essen bekommt mir nicht.

7. Er hat die Stellung beim Rundfunk nicht bekommen. (The negation cannot occur after 'Stellung' since 'beim Rundfunk' is an attribute to 'die Stellung'; note what happens if a pronoun is substituted for the object in this sentence: 'Er hat sie nicht bekommen'.)

8. Ich überquere die StraBe nicht.

9. Ich gehe nicht über die StraBe.

10. Haben Sie den Brief nicht in den Briefkasten gesteckt?

11. Er spielt nicht Tennis. (Note that in this example, rule 1 from the handout does not apply, since 'Tennis spielen' acts in the same way as a verb with a separable prefix, even though it is always written as two words. The example 'Ich spiele nicht Klavier' might be referred to at this point. If the

affirmative sentence were 'Ich spiele das Klavier', indicating that the speaker is at the moment playing a specific piano, rather than 'Ich spiele Klavier', indicating that the speaker is able to play the piano rather than being actually in the process of playing some particular piano, then the negative would be 'Ich spiele das Klavier nicht'. The presence of the article in 'Ich spiele das Klavier' indicates that the form 'Klavier' is not a part of the verb but rather a real direct object, in which case rule 1 does apply. For this reason, it would perhaps be better if rule 4 preceded rule 1, thus providing an ordered set of rules, that is, a set of rules in which a later rule does not contradict an earlier rule.)

Where alternate possibilities exist, they are listed. Otherwise, there is only one possible correct negation using 'nicht'.

B. 1. Nein, Herr Müller ist nicht hier.
2. Nein, ich warte noch nicht lange.
3. Nein, ich fahre nicht Auto. (Cf. number 11 above, and the explanation following it.)
4. Nein, ich sehe das Auto nicht.
5. Nein, mein Vater wohnt nicht mehr in Berlin.
6. Nein, ich habe noch nicht Kaffee getrunken.
7. Nein, ich trinke den Tee nicht mehr.
8. Nein, man kann die Brücke nicht mit Lastwagen befahren.
9. Nein, ich kenne ihn nicht.
10. Nein, wir müssen noch nicht Schluß machen.

ASSIGNMENT SHEET

1. Compare the handout which you have received, „nicht" ist nicht schwer, with Kufner's statements regarding it (page 21, 29; page 39, 3.141; page 41, 3.142), to see if the rules given on the handout cover all possibilities and if they agree with Kufner's statements.

Kufner's statements. Compare the statements in your textbooks

2. Read chapters 3 and 4 of Kufner. This will be discussed next time.
3. Read chapters 4 & 5 of Langacker, Language and its Structure. Be prepared to discuss.

SESSION V

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TOPIC	TIME	MATERIALS	PAGE
I. Review of assignment	50 min.		136
A. Negation			
B. Questions over Kufner, Chapters 3 & 4			
C. Presentation of material in Langacker, Chapters 4 & 5			
II. German phrases			139
A. Subordinate structure			
1. Attributive modifiers	50 min.		
a. Attributive-word modifiers (adverbials, adjectivals, nominals, verbals)			
(1) Primary auxiliaries (subjunctive; lack of progressive forms in German; passive)			
(2) Modal auxiliaries (negation of modals; subjective and objective use of modals)			
b. Attributive-phrase modifiers			
(1) Prepositional phrases			
(2) Conjunctional phrases			
c. Attributive-clause modifiers			
2. Objective modifiers	50 min.		
a. Clause objects			
b. Word objects			
(1) Direct objects			
(2) Indirect objects			
(3) Word order of multiple objects			
BREAK	20 min.		
B. Coordinate structure (conjunction)	10 min.		

SESSION V (continued)

TOPIC	TIME	MATERIALS	PAGE
C. Coordinate structure (apposition)	10 min.		
D. Centerless structure	30 min.		
1. Prepositional phrase			
a. Case governance by prepositions			
b. Dative-accusative prepositions			
2. Main clause			
3. Subordinate clause with conjunction			
Assignment			146
Evaluation			

Review of assignment:

Comparison of handout with Kufner: page 21: Note that Kufner states that any affirmative clause can be negated simply by the insertion of 'nicht'. This is true only with reservations; consider the relationships between "Er hat einen Bruder, "Er hat nicht einen Bruder," and "Er hat keinen Bruder." Both the second and third are negative counterparts of the first, but the second, "Er hat nicht einen Bruder," is contrastive in nature, i.e., it is not the normal negative of "Er hat einen Bruder" in the sense of opposite. "Er hat nicht einen Bruder" is similar to the English "He doesn't have a single brother." The relationship becomes more apparent if 'eine Frau' is substituted for 'einen Bruder'. The German sentence "Er hat nicht eine Frau" contains the implication that he might have several wives, but it so happens that he doesn't have even one. The German equivalent of "He doesn't have a wife" is "Er hat keine Frau." This expresses the negative relationship in the sense of the opposite of the affirmative statement "Er hat eine Frau." This relationship might best be illustrated by asking participants to first reread the first paragraph of Kufner's section 2.9, and then asking them to apply what is said there to the sentence "Er hat einen Bruder." The resulting negative, "Er hat nicht einen Bruder" is not an unusual sentence, and perhaps would not sound unusual even to a native speaker. Before discussing the implications of "Er hat nicht einen Bruder," ask the participants to apply the same rule to "Er hat eine Frau." The resulting negative should be felt to be unusual in the sense that in our society, for the most part,

men are not expected to have more than one wife. In discussing 3.141, be sure that participants understand what the author is trying to say when he states that "Ich kann Ihnen nicht Äpfel geben" corresponds to "I can give you not apples . . . ." This English sentence is grammatical only in a specific context, in which the speaker intends to complete it or the intended completion is apparent from other things that have been said.
page 41: The absence of a German counterpart for English auxiliary 'do' should be pointed out as a learning problem for speakers of English.

Ask if there are any specific questions concerning the assigned reading in Kufner, and handle them only in a general way since this session will be devoted to the material presented in Kufner.

Discuss Chapters 4 & 5 of Langacker. Key topics are:

simple lexical items: discreteness; words and morphemes; types of morphemes; inflection; derivation;

complex lexical items: affixation; compounds; idioms (attempt to get a definition of 'idiom' from participants; discuss some idioms, both from German and from English, such as 'how do you do?', 'wie geht's?' 'get to the root of the matter', 'da weiß man, wie der Hase läuft', etc.);

phonological, semantic and syntactic representations: homophonous forms; metaphor; lexical meaning vs. grammatical meaning;

linguistic and psychological constraints;

syntactic systems: surface structures vs. deeper structures; constituent types; complex sentences; conceptual vs. surface structures; ambiguous sentences vs. synonymous sentences; syntactic rules.

Phrase Structure: Define 'phrase'. Discuss Kufner's four types of phrases. Under the heading of 'subordinate structure', Kufner discusses attributive-word modifiers, viz., adverbials (including stressed adverbs, also known as separable prefixes), adjectivals, nominals and verbals; following verbals, there is a discussion of primary and modal auxiliaries, differentiated in English by the lack of ending in third person singular present as well as the lack of a full past tense syntax (modal auxiliaries), and in German by identical forms in first and third singular present (modal auxiliaries). The primary auxiliaries for each language are those which do not fit these classifications.

Under primary auxiliaries, tense sequence is treated by Kufner. Also treated are uncertainty, unreality and improbability, since these are often expressed by the use of auxiliaries in both German and English. Further points which should be made are the lack in German of forms like English 'is ...-ing' as a progressive verb tense, as well as all progressives, e.g. "he was eating, "he has been running," "he will be coming,""he could have been reading," etc.

Particular attention should be given to the section on passives. The English sentence "The door is closed" is ambiguous in the sense that it might be a statal passive or it might be an actional passive. Two German equivalents are possible for this English sentence, "Die Tür wird geschlossen" or"Die Tür ist geschlossen." Context can solve the ambiguity. Kufner suggests that if the English sentence can have 'being' inserted without changing the meaning, it is an actional passive, German "wird geschlossen." If the English sentence occurs in this context, "The door is closed every day at ten o'clock by his brother," the actional passive is again called for: "Die Tür wird jeden Tag um zehn Uhr von seinem Bruder geschlossen." But in the context "The door is always closed when I get there," the statal passive is appropriate: "Die Tür ist immer geschlossen, wenn ich da ankomme." Further, if an agent can be introduced into the English sentence, to be paralleled in German by "von + ...", the verb is an actional passive form.

The passive form of verbs which in the active govern a dative object should also be considered at this point, since English lacks a dative form and therefore has only the one type of passive construction in this regard.

Modal auxiliaries cause some intereference problems for English speakers learning German. The German set of modals is complete in its tense morphonogy, which is not true of English (indeed this is one of the distinctive features of English modals). Further conflicts arise in the case of negation for the modal auxiliaries. Consider English 'must--mustn't' with German 'müssen--nicht müssen'. The two are not comparable: 'nicht müssen' corresponds to English 'don't have to', whereas English 'mustn't corresponds to German 'nicht dürfen'. (Instructor: have ready a summary of Analysis sections 136-138, pages 274-283 of Lohnes and Strothmann: German, A Structural Approach Shorter Edition , which you should have read ahead of time.

This is a concise presentation of the subjective and objective uses of modals in German, with references to English.)

Attributive modifiers in subordinate phrase structure can be attributive words as discussed above. They can also be attributive phrases (prepositional phrases, which can modify nearly all types of expressions, and conjunctional phrases, which modify adjectival-adverbials, such as 'wie ich' in "so alt wie ich.') or attributive clauses (dependent clauses, which modify verbals, nominals, pronominals, adjectivals, and adverbials; give examples of each type.)

Beyond attributive modifiers, there can be objective modifiers (i.e., objects of verbs, either direct objects or indirect objects), which can be clause objects or word objects. (Note that some authors include within the category 'objects' prepositional objects, since German has many combinations of verb + preposition which occur together, such as 'warten auf', 'bitten um', etc.)

Here Kufner discusses direct and indirect objects, and since the word order of the objects in sentences which have both a direct and an indirect object differs from German to English, this situation should be discussed here. In English, if the two objects occur together (and if the indirect object is not the object of a preposition) the direct object always follows the indirect object. Note that English has no special set of endings for a dative case and must therefore rely on syntax to differentiate the two. German has a special case which can be used to make the indirect object, however, so the position is not rigidly fixed as it is in English. Both "Er gibt der Frau das Buch" and "Er gibt das Buch der Frau" are possible utterances in German, and both have the same lexical meaning, although the second is used only if 'der Frau' carries the major stress and it is the intention of the speaker to place special or contrastive emphasis on the dative object. If one object is a personal pronoun and the other is a noun or a demonstrative pronoun, the pronoun object always precedes. If both objects are personal pronouns, the accusative precedes the dative. This covers all possible combinations.

A more general statement might well be made here regarding the placement of pronouns in syntactic order: In normal non-subordinate clauses, pronouns are placed as close to the inflected verb as possible; in subordinate clauses, where the inflected verb is displaced to clause-final position, the subject of the clause comes immediately after the subordinating element, whether it is a pronoun or a noun. This accounts for sentences like "Gestern abend hat mir meine Mutter ein Buch gegeben," where one might expect the subject to occur immediately after the inflected verb, since most textbooks state that if the subject is not the first element in an independent clause it must be the third. Here it is the fourth element. Observe also what happens to word order if a sentence such as "Jeden Monat fahre ich fünftausend Kilometer" is placed into a subordinate clause, as might occur if the listener repeated the statement in a question, indicating that he was impressed or incredulous: "Haben Sie gesagt, daB Sie jeden Monat fünftausend Kilometer fahren?" Whereas the subject occurred in third position in the original statement, it must occur right after the conjunction in the subordinate clause structure.)

Note to Instructor: Kufner's statement that there is only one verb in German which is followed by two accusative objects should be mentioned, since Kufner's definition of object demands that it be replaceable by a pronominal. There are several verbs in German which can be followed by two accusative constructions, and whether these accusative constructions are true objects according to his narrow definition of 'object' might be misinterpreted by participants and eventually by their students. Textbooks usually contain lists of verbs which can take two accusatives, and they might be mentioned here: 'nennen taufen, heiBen, titulieren, schelten, schimpfen, schämen, fragen, bitten, finden, kosten'.

The second kind of phrase structure handled by Kufner is coordinate structure (conjunction), in which two or more expressions perform the same function; the last two expression in such a construction are usually joined by a coordinating conjunction.

Another kind of coordinate structure is classed as the third type of phrase structure; that is apposition, in which two (or rarely more) expressions stand in apposition with one another. In other words, two expressions function as a single expression syntactically. "Mein Freund Hans kommt" illustrates apposition. 'Mein Freund' and 'Hans' are equivalent in the sense that 'Hans' could be substituted for 'mein Freund' in any utterance without necessitating any further change within the sentence "Mein Freund Hans kommt," the two expression function as a single one, since the verb form is the same as would occur if one or the other were deleted: "Mein Freund kommt"; "Hans kommt."

The fourth and final type of phrase structure in Kufner's classification is the centerless structure, which includes prepositional phrases, main clauses, and subordinate clauses introduced by a subordinating conjunction. The latter two are discussed in the section dealing with clauses and are included here only because they are structurally similar to prepositional phrases in that they are centerless, that is, the phrase as a whole functions differently from either of its two parts.

Prepositional phrases present a learning difficulty for English speakers since German prepositions govern different cases. The case which a preposition governs must be learned when the preposition is learned, and if this is done and is reinforced often enough, the only problem which remains is with the prepositions which govern either the dative or the accusative case, depending usually on the meaning to be expressed. "Er geht auf den Rasen" and "Er geht auf dem Rasen" are both possible. The first indicates that he is walking onto the lawn (he wasn't on the lawn before but now he is walking onto the lawn, perhaps from the street); the second indicates that he already is on the lawn and he is walking on it. Numerous examples of this sort can be given for those German prepositions which can govern either the dative or the accusative case, and as Kufner suggests, probably the only sure way to acquire this feature is through great amounts of practice.

ASSIGNMENT SHEET

1. Read the rest of Kufner.
2. Read Chapters 3 & 9 of Langacker, Language and its Structure.
3. Individuals, as assigned by instructor, should prepare one of the following:

   (All drills should be composed of short, manageable utterances)

   a. A drill which contrasts subordinate word order with independent-clause word order (e.g., a short sentence to be followed by an utterance introduced by the phrase "Sagen Sie, daB . . .?")

   b. A drill which contrasts statement word order with yes-no question word order (e.g., a statement to be transformed into a yes-no question: Er geht heute in die Stadt. Change to Geht er heute in die Stadt?

   c. A drill which reinforces the dative or accusative after prepositions which can govern either. Use context to clarify this. Example: Answer the following questions, using in your answer the suggested preposition:

      1. Wo hast du sie gesehen? (in)
      2. Wo gehst du heute abend hin? (an)
      3. Wo hat er seinen Hut gelegt? (auf)

SESSION VI

TOPIC	TIME	MATERIALS	PAGE
Review of Assignment			149
A. Questions over Kufner	10 min.		
B. Presentation of drills by participants, critique by instructor	20 min.		
C. Presentation of material in Langacker, Chapter 3	20 min.		
D. Questions over Langacker, Chapter 9	10 min.		
I. Parts of speech	50 min.		151
A. Functional vs. semantic classification			
B. Grammatical markers			
C. Function words vs. content words			
D. Noun inflection			
E. Verb inflection			
F. Adjective-adverbs			
G. Function words 1. Pronouns 2. Prepositions 3. Adverbials			
BREAK	20 min.		
II. Compulsory grammatical categories			155
A. Substantives 1. Number 2. Case 3. Gender	30 min.		

SESSION VI (continued)

TOPIC	TIME	MATERIALS	PAGE
B. Verbs 1. Person-number agreement 2. Tense 3. Infinitive 4. Participles 5. Reflexives	30 min.		
III. Compulsory semantic categories	60 min.		157
A. Range (syntactic, morphological, denotative, connotative circumstantial)			
B. Subjunctive			
C. Progressive			
D. Past verb forms 1. Tense conflicts between English and German 2. Choice of auxiliary			
E. Nominal gender distinctions			
F. Location vs. destination			
G. Second-person pronouns			
EVALUATION OF COURSE			

SESSION VI

REVIEW OF ASSIGNMENT: Handle general questions over Kufner, remembering that the material covered there will be treated in this session.

Discuss chapters 3 & 9 of Langacker. Key topics are:

linguistic diversity: discuss linguistic boundaries; the transition from English to Spanish in the Rio Grande valley, for example, as well as the change from French to Italian, and from German to Dutch; discuss and arrive at a workable definition of dialect (consider such concepts as Germanic dialects, Romance dialects on the one extreme, and Southern dialect vs. Northern dialect of English, in unscientific terminology, of English); give several examples of isoglosses, using German and English data, e.g., the Rhenish fan and the isogloss for 'you-all' differentiating the South and the South Midland from the North and the North Midland (Kurath: A Word Geography of the Eastern United States, figure 30); similarly 'corn husks', Northern, vs. 'corn shucks', Southern.

standardizing tendencies: prestige dialect; governmental policy; written language.

writing: acronyms, such as NATO, flak, also Gestapo, Schupo, LKW, BRD, etc.

writing systems: syllabic, alphabetic, pictographic, logographic.

language acquisition: child vs. adult.

language universals.

Ask participants to present assigned drill assignments. Criticize and make suggestions for improvements. In a), watch for present tense in introductory clause: 'Sagen Sie, daB. . .' rather than 'Sagten Sie, daB. . .', since latter requires subjunctive verb form in subordinate clause; b) watch for word order in question-form (especially if statement had pronoun subject not in first position); subject must follow verb immediately; example: STATEMENT: "Gestern war er den ganzen Tag zu Hause." QUESTION: "War er gestern den ganzen Tag zu Hause?"; c) be sure that context makes it crystal clear which case is to be used after preposition.

Handle questions over Langacker, Chapter 9. The material presented there was treated in earlier sessions of this course, but there may be questions over the reading

Parts of Speech: Discuss parts of speech in terms of traditional definitions, then in terms of functional definitions. Kufner's examples are somewhat incomplete. On page 50, for example, 'turn to gorb' and 'next to gorb' are not clear contexts; in the following sentences, 'gorb' would be a verb, even though they occur in the smaller contexts which he cites: the form 'gorb' in 'turn to gorb' could be a verb in the greater environment "Do not gorb facing that way; turn to gorb"; similarly in 'next to gorb', if the environment is expanded to "Paul gorbed first; next to gorb was Pete, followed immediately by Jim." Note that the other two environments are a little more certain, since 'to' is part of the auxiliary verb, in a sense: 'like to' and 'want to'. Discuss also the criteria in the last paragraph of page 50. The following statement is made: "If we add the word the in front of ship, all is clear: the ship sails. The only circumstance under which 'ship' is for sure a noun in such an environment is if there is an intonation pattern indicating either a statement (2 3-1) or an echo question (2 3-3); or if the sentence is written, if the first word is capitalized and there is a period or a question mark at the end. Without these markers, the environment is still ambiguous as regards the part of speech (the function) of 'ship', since 'the ship sails' might be part of a larger environment in which 'ship' could function as an adjective: "The ship sails that you see in that case are the largest ship sails in the world."

Here 'ship' functions in much the same way as 'green' in the sentence "The green sails that you see in that case are the largest green sails in the world."

Discuss the two pieces of poetry presented on page 51 of Kufner, "Jabberwocky" and "Gruselett". Point out the fact that there are more markers available in German than there are in English, as far as morphology is concerned. (Nouns are marked for gender as well as case, and if the article or its equivalent is not specific, for example, a descriptive adjective might provide further cues. There are verb forms which are ambiguous, as with many non-vowel-changing verbs in which the 3rd singular and 2nd familiar plural forms are identical, and usually the subject of the sentence provides confirmation as to which verb form is being used.)

Explain the difference between function words and content words, in terms of the example "The iggle squigs trazed wombly in the harlish goop." The items 'the' and 'in' are function words, and as such are not liable to substitution by nonsense words, at least not to the extent that the content words of English can be replaced by nonsense words without risking making an utterance ungrammatical.

Nouns: English and German nouns differ in quite a few aspects. English has no grammatical gender, only natural gender, which means, in effect that certain nouns must be replaced by 'he' (the masculine personal pronoun), other nouns must be replaced by 'she' (the feminine personal pronoun), and the rest must be replaced by 'it' (the neuter personal pronoun). Note that the fact that 'she' is frequently the pronoun for a ship, and quite often for a car, does not nullify the fact that 'she' is the feminine personal pronoun; it merely indicates that ships have become personified as far as English is concerned, and the same is true of automobiles to which people have become persoanlly attached. The sentence "She's the ugliest, most unreliable car I have ever seen" would seem much less unlikely to occur than the sentence "She's the most beautiful car I have ever owned."

Discuss the major features of German noun inflection. Feminine nouns are never inflected in the singular. Monosyllabic masculine and neuter nouns add -es in the genitive singular, and can optionally add -e in the dative singular, although this inflection is becoming obsolete except in such fixed expression as 'nach Hause'. All dative plural nouns (except those which form their plural by adding -s) must end in -n; if the nominative plural form does not end in -n, the -n must be added in the dative plural. Most feminine nouns, in the plural, end with -n or -en. (If the singular noun ends in -e, -el, -en, only an -n must be added, as in 'die Dame, die Damen', but otherwise, -en must be added, as in 'die Begegnung, die Begegnungen'. Discuss the six types of plural morpheme presented in Kufner (page 55).

Verb inflection should be discussed in terms of weak verb and strong verbs, as well as in terms of conflicts between English and German: German has no progressive forms; English has only a 3rd person singular inflection, except in the case of 'be, am, are, is', whereas German has five personal inflections (quite often the third singular and the 2nd familiar plural are identical, but not always).

Adjectives and adverbs are similar in the two languages, with the exception that German attributive adjectives (adjectives used before nouns) are inflected for case number and gender. German has only one means of forming comparative and superlative, whereas English has two: -er and -est added to the adjective, or 'more' and 'most' placed before the adjective. In the discussion of conflicts, point out that the statement on page 59 is not completely true ("If we wish to use a singular, however, we have to insert the 'noun' one.") Consider the line from a once-popular song, "When the blue of the day meets the gold of the night," also "The father is the larger of the two!" In the first example, 'blue' and 'gold' would be interpreted as nouns, but they are identical in form with the adjectives in 'the blue sky' and 'the gold coin'. In the second example, 'of the two' might be interpreted as a substitute for 'one', but there are many speakers of English (probably most) who would accept this sentence as perfectly grammatical: "The father is the larger," provided that the nonlinguistic context were appropriate, as if two people are standing at a distance and a speaker asks whether the bigger man is the son, and the reply is "No, the father is the larger," (with primary stress on 'father').

Function words are similar in German and English as regards function. The main problems are in the area of morphological changes which they undergo or which they cause. Pronouns show the greatest variety in form of any English words, and German pronouns show a great degree of morphological variation in terms of case, number and gender. Prepositions deserve special attention because of the variety of cases which prepositions govern in German.

The final section of Kufner's Chapter 4 deals with adverbs. Adverbs derived from numerals differ from the bulk of adjective-adverbs discussed earlier, in that the adverbial form consists of the adjectival stem plus the ending -ens. Another class of adverbs consists of items denoting special relationships. The class consists of seven words (listed on page 62 of Kufner). There is also a class of German adverbs which are etymologically related to adjectives ending in -ig. These are listed on pages 62-63. The final class of adverbs discussed consists of function words, including the question words (except for the pronominal question words, which are pronominals rather than adverbials), degree adverbs ('fast, nur', etc.) sentence adverbs ('doch, denn, nicht, wohl, auch'), and the stressed adverbs (also called separable prefixes).

Compulsory Grammatical Categories. Those grammatical categories which must be recognized and observed in use in order to assure proper communication in a given language are called compulsory grammatical categories. The number and kinds of categories vary from language to language. In terms of form, English shows no distinction like that shown between dative and accusative case in

German. There is no form in English, be it nominal, adjectival, determiner, pronominal or whatever, which exhibits any kind of morphological change, either ending, prefix, internal change, or even stress or pitch difference, between use as indirect object and use as direct object. An understanding on the part of the teacher regarding this difference between English and German, as well as the many other differences which can be seen in terms of compulsory grammatical categories, can help the teacher to interpret student problems and errors. Why does the verb 'folgen' take only a dative object, for example? And why does an indirect object occur in the dative case, whereas a direct object occurs in the accusative case? A speaker of German learning English would be tempted to reverse these questions: Why does the English verb 'follow' take the same pronominal object as the verb 'see'? How do speakers of English keep direct and indirect objects separate, when they are not even differentiated morphologically? As always, answers to 'why' questions are difficult to provide, but a knowledge of the compulsory grammatical categories of the two languages provides a clue as to the reason for the question in the first place. Kufner presents the compulsory grammatical categories of German, first for substantives: number, case and gender; then for verbs: person-number agreement and tense. The infinitive form is discussed: the statement is made that both languages have infinitive forms, but that only 'be' and 'sein' have a special form for the infinitive, ard further that English modals do not have an infinitive form. The past participle form in the two languages is comparable and usually does not pose any learning problem, but the present participle might be troublesome, since in English the present participle can be part of a verb phrase, but the German present participle (stem + -d) is used only adverbially and adjectivally. The category "reflexive" does not have quite the same status as the previously mentioned categories, in that all nouns must be marked for number, case and gender; verbs can be marked for "reflexiveness" by the presence of a reflexive pronoun, but the only marking for "non-reflexiveness" is the lack of a reflexive pronoun. (Discuss the fact that certain German verbs must have an object of some kind; if not a reflexive, then some other substantive.)

Compulsory Semantic Categories: Kufner's discussion of semantic categories begins with a consideration of syntactic range, morphological range, denotative range, connotative range and circumstantial range" and a few examples of differences in each of these ranges between English and German.

Since English does not have a formal grammatical category which can be called subjunctive (formal in the sense that there is no verb form in English which can be identified as a subjunctive form out of context; German 'würde' is a subjunctive form in the formal sense, marked as such by the stem vowel and the ending, and would be recognized as a subjunctive form in or out of context; the verb form in the English sentence "If John were only here" is subjunctive, but the subjunctive is recognizeable only from the context, since the same verb form occurs in non-subjunctive, or indicative, contexts also, such as "We were ready at 1:00", and it is not possible to say that 'were' is necessarily subjunctive unless it occurs in a context in which the subject is 1st or 3rd person singular), the semantic range of the category "subjunctive" must be established for the speaker of English.

Comparable to the ambiguity which exists in English for verb forms out of context is the semantic range of German verbs regarding the category of "progressive." "Was für Bücher lesen Sie?" is equivalent to several English sentences: "What kind of books are you reading?", "What kind of books do you read?" What kind of books will you read?", and "What kind of books are you going to read?" (A very effective way of deciding whether or not a given word or utterance in a certain language is ambiguous is to consider possible translations into another language.)

Differences between English and German in the uses of past tense forms are considered next. Since most textbooks call 'machte' a past tense form and 'hat gemacht' a present perfect form, and state that English also has a past tense, as in 'made', and a present perfect, as in 'has made', students are often misled from the beginning regarding the use of past tense forms in German. Except for 'haben, sein, werden' and the modals, most German verbs do not occur in the past tense in conversation, except in purely narrative siutations. The usual past form for conversation is the present perfect. The English situation is somewhat different. Both of these questions are possible: "Did you see the cathedral?" and "Have you seen the cathedral?" But in German, only "Haben

Sie den Dom gesehen?" is possible, without further special context, since the presence of a 2nd person pronoun implies conversation. The tense situation is further complicated by the use in German of present-tense forms when the meaning, at least regards comparable situations in English, has a past-time aspect. For example, "Ich wohne schon zehn Jahre hier" has for an equivalent in English only "I have lived here for ten years" or "I have been living here for ten years."

Choice of perfect auxiliary is discussed, and it is mentioned that verbs which take an accusative object use only 'haben' as perfect auxiliary, other verbs use 'haben' or 'sein', depending on whether or not an internal or spatial change is indicated. (NOTE: the reference on page 89 to section 3.22 should read section 3.122, which is found on pages 31-33)

Nominal gender distinctions are posed as a semantic category which is new to English speakers learning German. Note that nominal, or natural, gender distinctions are sometimes overridden by form; 'der Babysitter' is masculine gender, i.e., the determiner is masculine 'der', even though baby sitters are usually female; the reason for the grammatical gender in such cases would seem to be the -er ending, the agent suffix, which is masculine in German.

The difference between location and destination is no longer expressed morphologically in English (but consider the archaic forms 'whence', 'whither'), but the distinction must be made in certain prepositional phrases in German. English 'behind the house' could be either 'hinter dem Haus' or 'hinter das Haus'. (The choice need only be made with ambivalent prepositions, and only nine need concern the elementary language teacher: 'an, auf, hinter, in, neben, über, unter, vor, zwischen', and even for these nine, when no spatial relationship is involved, the choice is not predictable with any consistent criteria; thus the teaching and learning problem in connection with these prepositions is formidable.)

The final semantic category treated by Kufner is the idea of 2nd person pronouns (pronoun used to address the person to whom the speaker is speaking). Most dialects of English have only one second person pronoun; a few have two, 'you' and 'you-all'. Those dialects which have 'you-all' consistently use this form as a plural form, and 'you' as a singular form, but the distinction has no effect on verb forms; 'you are next' and 'you-all are next'. The situation of German 2nd-person pronouns can be explained and understood intellectually by students, the only problem being in application in real situations.